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FOR JANUARY 8, 1945

From the Secretary

ALTHOUGH Department of Agriculture employees are devoting their main attention to wartime activities, it is only natural that they should be interested also in post-war prospects for agriculture. In my opinion agriculture after the war will likely be more interesting and more challenging to employees than ever before. The Department must, of necessity, keep abreast of new developments and innovations that are sure to come in agriculture. It is logical to assume then that the job of coping with the changing situation of the future holds tremendous appeal for those who will carry on the work of this Department.

We know that the need for employees to administer the agricultural programs, both old and new, and to carry on research in the field of agriculture is a continuing need, just as the process of producing food and fiber is continuous. And indications are that personnel opportunities in the Department will increase with the resumption of long-range projects which have been interrupted by the war, with possible expansions of some existing programs, and as new activities begin.

It is too early to tell yet exactly what kinds of agricultural programs will be needed when the war is over, but we can see clearly the need for certain types of activity which will be necessary in order to cope with the problems of the post-war period. To mention a few, I think there will have to be programs in the years ahead for dealing with the problems of conservation, forestry, agricultural credit, agricultural prices and income, and land tenure. The matter of shifting back to a peacetime production basis will likely require attention too.

The fields of human nutrition and rural health offer additional possibilities for agricultural action after the war. To meet the problem of undernourishment in this country would go a long way toward solving the problem of agricultural surpluses and marketing. Rural housing and extension of social security cov-

erage to farm people are other possible "musts" on the post-war agricultural calendar. And with over 6 million farm and rural nonfarm homes still without electricity, the rural electrification program seems destined for greater things ahead.

All prospects considered, I would say that the post-war outlook for a new and better agriculture is particularly encouraging. Therefore, the opportunities for service and advancement seem promising for Agriculture's employees who participate in the effort to build a stronger and happier rural America in the years ahead.—CLAUDE R. WICKARD, *Secretary of Agriculture*.

WFA reorganized

ADMINISTRATOR'S MEMORANDUM NO. 27, Revision 1, dated December 13, gave a clear, comprehensive account of the reorganization of WFA, effective January 1, 1945. It listed all offices with their functions, as well as top personnel.

In a broad general way the reorganization abolishes the Offices of Distribution and of Production, creates Offices of Basic Commodities, of Marketing Services, and of Supply, and makes Federal Crop Insurance Corporation an independent program agency of WFA. The functions, funds, personnel, and property of Prod. dealing with feed management and crop production were transferred to the Agricultural Adjustment Agency. Those dealing with land conservation went to Soil Conservation Service.

Many of the responsibilities of the Director of Production now become those of the chief of AAA. J. B. Hutson, former Director of Production, is now Deputy Director (for agriculture) of the Office of War Mobilization and Reconversion. This marks a notable advance in the status of a career man who has spent practically his entire life, since graduating from university, in USDA agencies.

The OD is essentially divided into an Office of Marketing Services and an Office of Supply, both for the time headed by Lee Marshall.

In the Office of Marketing Services are concentrated functions of and relating to regulatory, inspection, and service statutes; maximum price and rationing regulations; school lunch and direct distribution programs; and activities of Compliance Branch, Industry Operations Branch, Marketing Facilities Branch, Civilian Food Requirements Branch, Nutrition Program Branch, Distribution Planning Branch (except for price support and subsidy activities), Marketing Reports Division and activities relating to formulation, administration, and enforcement of certain specific War Food Order programs.

The new Office of Supply will handle functions of Requirement and Allocations Control, Program Liaison, Procurement and Price Support Branch, and Shipping and Storage Branch; as well as activities in connection with War Food Orders 71, 73, 74, 63, and 116; and those relating to plant facilities and financing; those involving the use of Commodity Credit Corporation or Section 32 funds (except school lunch and direct distribution programs); those relating to the requisition of food and the acquisition of property; and those respecting procurement, price support, and subsidy operations.

The new Office of Basic Commodities, headed by Carl C. Farrington, will have transferred to it the functions, funds, personnel, and property of CCC relating to the Cotton, Grain, General Crops, Hemp, Oilseeds, and Sugar Divisions. Frank Hancock is now both Farm Security Administrator and President of CCC. R. W. Maycock, formerly of Budget & Finance and the Coast Guard, is treasurer of CCC. Lee Marshall and Carl C. Farrington are both vice president for administrative and fiscal services is G. E. Rathell.

Immediate responsibility for the lending, buying, selling, storage, transportation, subsidy, and price support programs of WFA divides between the Directors of Supply and of Basic Commodities, on a commodity basis. These duties they will carry out as vice presidents of CCC. But the Director of Supply will have general supervision over all procurement for Government needs. The Directors of Basic Commodities and of Supply will conduct disposal operations with respect to food in accord with assignments to them under the Surplus War Property Act.

Present WFA agencies

The following staff agencies are now attached to the Office of the War Food Administrator: Offices of Price, of Surplus Property and Reconversion, of Transportation, of Water Utilization, and the National War Board. As heretofore USDA staff and service agencies

also constitute part of and serve WFA. These are: Bureau of Agricultural Economics, Office of Budget and Finance, Office of Foreign Agricultural Relations, Office of Information, Land Use Coordinator, Library, Office of Personnel, Office of Plant and Operations, Office of the Solicitor.

WFA also has in it the following units which function as independent program agencies: Agricultural Adjustment Agency, Commodity Credit Corporation, Extension Service, Farm Security Administration, Federal Crop Insurance Corporation, Office of Basic Commodities, Office of Labor, Office of Marketing Services, Office of Materials and Facilities, Office of Supply, and Soil Conservation Service.

The Interagency Food Importation Committee, established by the Administrator April 4, 1944, will be composed of the Directors of Marketing Services, Transportation, Foreign Agricultural Relations, Supply, Basic Commodities, and the Chief of the Agricultural Adjustment Agency, with the Director of Supply as Chairman. He will also be chairman of the Food Requirements and Allocations Committee, established March 18, 1944, and will perform duties assigned to the chairman connected with the work of the Combined Food Board.

Radishes on Guadalcanal

AN UNUSUAL Victor Garden is that in charge of the former Farm Security Administration supervisor for Oconee County, S. C., Walter B. McKinney. His present address is Guadalcanal, Solomon Islands; his title, lieutenant.

Today a sergeant's tiny radish patch behind the battle lines there has grown into a 1,800-acre farm, expected to yield 150,000 tons of vegetables in 1944, worth more than \$11,000,000,—G. I. currency! The soil is so rich it would yield 12 tons of radishes per acre, but nobody could possibly want that many radishes.

McKinney entered the Army in 1942. He left the infantry to head this unique farm project. His main enemies now are the corn earworm, the wild hog, and a peculiar two-legged pest of watermelon patches clad in khaki which works by moonlight. Sprays conquer the first, electrically charged fences discourage the hogs, but watermelon vines still spring up between the corn rows where that other marauding pest spilled the seed!

About 200 native laborers do the planting, and very well too, until they get tired, whereupon they dump a lot of assorted seed in a hole thinking this will never be discovered. Under existing climatic conditions the seed veritably explode and all sorts of things start growing like crazy. The laborers also strip and dance in the cooling showers every time the diesel-powered water-sprinkling system has to be used—and it really doesn't rain all the time in Guadalcanal—only November to March—and most of the rest of the time.

Most planting is done mechanically. One transplanting machine can pick up 10,000 tiny pepper plants at a time, move

them to a new plot, and set them in at wider intervals. Pineapples grow in the farm; banana trees have been set out; vegetables produce riotously the year around. Lt. Kinney says he'd soon be rich if he could transport the 1,800 acres back here and sell the produce. Anybody have any ideas on how to do that?

Blood wanted

USDA-WFA in Washington put on a special drive for blood donors the week of December 4. The drive will continue until military authorities indicate that an ample supply of blood plasma has been accumulated, or that urgent need for it no longer exists.

There was an exhibit in the patio of the Administration Building. Gray Ladies were present to make appointments. Agencies held separate meetings in the Auditorium at which employees saw a movie and were addressed by their chiefs.

Blood donations for USDA-WFA in Washington totaled 197 pints in September. This was increased to 447 pints for November, due to special efforts. December is going still better so far. It is heart-warming to see two bus loads of people leaving the patio for the center about 10 a. m. each day.

As the fighting gets tougher the need is more urgent. People in the field must arouse themselves to this need. Each agency has its own key men and women, with whom you should communicate in order to do your share. Red Cross quotas must be met everywhere. Get behind this program wherever facilities exist to do so.

Secretary Wickard is a blood donor. How about you?

This eating business

WELL, A NEW YEAR has rolled around, and you have probably waited for this first 1945 issue of *USDA* to come before you dared take a bite, for fear we might run out of food this year. But it doesn't look as if we shall starve in 1945 either.

Total milk production may attain 119 billion pounds, a billion more than in 1944. Total fruit production this year should equal that of last, which was itself 20 percent above normal. A record wheat crop last year assures ample supplies for all food needs and a continuance of large nonfood uses. Meat production in 1945, however, will probably fall 2 billion pounds below the record 24 billion pounds chalked up in 1944.

These statistics give some idea of what farmers expect to produce in 1945. But

there will be an outlet for virtually all food available. Noncivilian demands will be large as long as the war in Europe continues. Its end there will bring a decline that will be offset, in part, by foreign rehabilitation requirements and high civilian demand here at home.

We are still eating more per capita than we did before the war—7 percent above 1935–39 levels, in 1944. We ate less canned fruits, fats and oils (including butter), cheese, and sugar, but more of other food groups. That increased domestic consumption explains why supplies of various foods tighten from time to time.

Biotherapy

A SCIENCE writer on the New York Times last summer defined biotherapy as the curing of disease by means of chemical substances secreted by living things, molds, and bacteria, for instance. The history of penicillin and the part of USDA research workers in developing it have made this familiar to us.

But now Selman A. Waksman of the New Jersey Agricultural Experiment Station, and his associates, have revealed to the National Academy of Science that many molds other than *Penicillium notatum* can produce penicillin. Some species of fungi not even of the genus *Penicillium* do so. It is a question of finding the most productive strains and molds for the purpose. Moreover some of the molds produce a second interesting antibiotic (germ-killing) factor.

Other experiment station workers, C. S. Pederson, and his associates, at the Geneva (N. Y.) Agricultural Experiment Station, found that the Roman philosopher Cato was probably right when he recommended the use of mashed cabbage to break up and heal bruises. What Cato didn't know was that he was right in step with modern science.

Pederson et al were studying the fermentation of sauerkraut. They found that a number of undesirable bacteria on cabbage leaves, when brought to kraut factories, disappeared completely some hours after the cabbage was cut up and fermentation began. They next found that cabbage juice contains something inimical to bacteria, more pronounced in some varieties than in others.

Common organisms of significance in sanitation and in food poisoning were among those cabbage juice would destroy. Onion juice acted similarly. Remember when they said eat onions to cure infections and prevent colds? How close together folklore and science are every once in a while.

Budget and Finance

EVER SINCE medieval days when kings ran into trouble getting money without parliamentary approval of what they were going to do with it, the growth of democratic government has been closely identified with control of the public purse. In this country today the President each year submits, in the Budget, for Congressional approval—and for appropriation of the necessary money—his proposals concerning the various Government programs and the amounts he recommends for them.

The President, however, is primarily concerned with developing an over-all program for the Government. Specific planning of the component programs for presentation to the Budget Bureau and the President must be done by the departments and agencies which are to carry them out.

Leadership in analyzing the requirements of agricultural programs—and presenting these requirements to the Budget Bureau in terms of manpower, materials, and dollars—is provided by our Office of Budget and Finance. Likewise, B & F plays an active part in explaining to Congress the estimates for agricultural programs as proposed in the President's budget, and acts as the Department's representative in dealing with the House and Senate Committees on Appropriations.

After Congress passes the annual appropriation act, B & F helps get the program under way by seeing that necessary funds are available at the right places and the right times to do the job. As a follow-through, B & F assists in evaluating work results as a continuing stimulus to efficient and economical operations.

Orderly administration of broad agricultural programs running into many millions of dollars requires a highly effective reporting and accounting machinery to keep top officials constantly informed on the financial condition of their programs, and to assure the public that its money is properly spent for the purposes approved by Congress. One of B & F's jobs is to keep this machinery running and in gear with the Treasury, General Accounting Office, and Budget Bureau. B & F devotes much energy to these problems and also strives to improve the management of the Department's procurement, sales, and warehousing activities.

Finally, B & F serves as the central contact on budgetary and financial matters with other agencies of the Government and Congress. In this connection B & F keeps USDA-WFA informed on

congressional developments of interest to agriculture and makes known to Congress Department reports on pending legislation.

Wartime jobs

B & F has facilitated the handling of literally billions of dollars advanced by other Government agencies for lend-lease and relief purchases of food, facilities, and equipment, for map work, and scientific research required by the Army and Navy, for the development of housing for war workers, and for countless other projects—all in addition to overseeing the budgetary aspects of an adequate wartime food supply.

B & F has aided in handling priorities, rationing, surplus property matters, withholding tax, and war bond deductions, and has participated in the Clearing Office for Foreign Transactions and Reports. For maximum work efficiency, B & F is now spearheading a management-improvement program aimed at all levels of USDA-WFA. Looking toward demobilization and post-war readjustments, B & F has worked on the budgetary aspects of post-war planning, public works, GI "Bill of Rights," and the recent reconversion reports requested by the President and the Budget Bureau. B & F and Personnel are also cooperatively spearheading a successful Department-wide management-improvement program.

Ever since B & F was established on June 1, 1934, it has been under the direction of W. A. Jump, a career employee who entered the Department in 1907 as a messenger in the Bureau of Animal Industry. In 1921 he was named private secretary and administrative assistant to Secretary H. C. Wallace, and in 1923 Budget Officer. When the Office of Personnel and Business Administration was established in 1925, Mr. Jump became Assistant Director, and when this Office was divided into B & F, Personnel, and Plant and Operations in 1934, he was appointed Director of Finance as well as Budget Officer.

Breeding: Good breeding becomes more and more important in the USDA. Now O. G. Hankins, Bureau of Animal Industry meat specialist, declares that differences in meat tenderness are about as much influenced by breeding and exercise of the animals as by their age and feeding. Many a tough old steer might have been quite tender had it had good breeding. It seems possible that we shall soon be able to breed tender, palatable steaks—also special baking potatoes to go with them. For Department plant specialists, working with experiment station scientists, have produced the Mohawk, a fancy, new potato variety especially adapted to the oven. It was bred to get hot—and bake! It combines the high baking quality of Green Mountain and Katahdin, and will become more prominent in 1945, with more seed stock available.

After 40 years

EARLE H. CLAPP, associate chief of Forest Service, has retired after 40 years of service. He probably had a bigger part in developing national forest programs and policies than any other one man since the days of the pioneer Chief Forester, Gifford Pinchot. He became a leader in the second crusade for forest conservation. The first, which Pinchot led, resulted in conservation being recognized as a national need and in the establishment of the national forest system.

Clapp carried on from there. The big job was and still is to effect forest conservation on a Nation-wide basis, to stop depletion, and to bring about full development and wise use of all forest land, whether in private or in public ownership. The best interests of all the people must prevail.

While Clapp has been associate chief of FS since 1935, he was acting chief 1939 to 1943. Earlier he was for several years in charge of FS research. The 12 regional forest experiment stations were organized under his leadership, and the work of the Forest Products Laboratory at Madison, Wis., was greatly expanded.

Death takes no holiday

FARM SECURITY borrowers in Putnam County, Mo., have developed an outstandingly successful livestock program as a means of earning a better living. These small farmers now own purebred foundation stock, share the use of purebred sires, have greatly improved their pasture lands. At their fourth annual calf sale early in November they sold 1,600 high-grade and purebred calves from their farms and those of their neighbors—at prices estimated at more than \$1 per hundredweight above the going market.

Four days after the sale Barney Ream, a USDA field worker whose leadership and ideas had stimulated much of this progress, died. As FSA supervisor at Unionville for 9 years he originated the annual calf sales, and worked untiringly to help Putnam County's low-income farmers increase their efficiency and build up production. He handled the making of loans, and offered kindly guidance, to 713 of the county's 2,013 rural families. He had to drop only four cases because of nonpayment.

At 46, Ream was a veteran in FSA. He gave up high school teaching in 1935 to join the Missouri Rural Rehabilitation Corporation, and continued his work among disadvantaged farmers when the Corporation's functions were taken over by the Resettlement Administration, later to become FSA.

Efficiency-rating season again

THE RECENT Conference on the Administration of Efficiency Ratings held by the Civil Service Commission put rating and reviewing officers and efficiency-rating committees on notice that March 31 would soon be rolling around again. Meantime they have a job to do. Committees, acting as representatives of heads of agencies, were reminded that an efficiency-rating program which does not contribute to better management is valueless. They were urged to see that better use is made of the efficiency-rating system as a management tool.

The good effects of periodic discussions on work performance between supervisors and employees, in relation to past and future efficiency ratings cannot be overestimated. In fact, now is the time for just such discussions, because employees can then improve their work before making official ratings. Job-performance standards and efficiency-rating-element patterns, which incidentally should be known to employees, should form the basis for such discussions.

Primarily, of course, these standards should be available to guide supervisors in making fair, honest evaluations of actual employee performance as compared with expected performance based on the standards set for the job. The Civil Service Commission offered to advise agencies on the establishment of job-performance standards. It urges efficiency-rating committees, classification officers, and supervisors to work together when positions are established, to determine element patterns for future efficiency ratings, so that new employees can be told when first hired the basis upon which they will be rated, and set proper goals.

Conferees were reminded that efficiency ratings as well as classification sheets have the semblance of Government vouchers. Statements which do not truly represent the facts involve misuse of Government funds. All officials concerned with making, reviewing, and approving efficiency ratings were cautioned to be fair and impartial and were reminded that they also were employees.

In this connection the effect of an incorrect rating on the morale of employees was discussed. It was pointed out that, though an employee thought another's rating too high, that was not necessarily so. He might not know all

the facts. Employees who think that their own rating is inaccurate should consult their efficiency-rating committee or their personnel officer.—PHYLLIS READ, Inf.

Bull session

A WHILE BACK we attended a "bull session" of USDA-WFA employees at Little Rock. They were discussing rural-health plans. They met voluntarily in one of the offices at 6:30 p. m. and exchanged views, no holds barred, until 8:30. Three outsiders were present, the manager of a local hospital (Trinity), which provides over-all health service at an annual prepaid rate, a union man to tell what labor was doing, and your editor.

The others present were from Farm Security Administration and the Bureau of Agricultural Economics. It was a lively session. No final conclusions were reached or attempted. But a lot of information was passed out, and everyone present gained educationally from the exchange of views with his fellows. This is a grand idea and should be extended. Nothing could be more helpful both in Washington and in the field.

For one thing we learned something about FSA's county-wide medical plans in Newton county, Miss., and in Nevada county, Ark. In the former county non-rural people now clamor for the same medical coverage farmers are getting. The cost of such complete medical care is only about \$65 a year per family, and farm families are large.

While these low-income farm families could originally pay only about \$6.42 a year on this care, they now average about \$18 annually. A start was made at 6 percent of their annual net incomes and, would you believe it, the average family tended to overestimate its income—possibly trying to keep up with the Joneses?

With the entire budget of the plan, i. e. payments of the farmers plus the necessary FSA subsidy in impoverished communities, dentists are paid in full, hospitals are paid from 80 to 100 percent of their billings, and doctors get about 80 percent of their billings. This means doctors do fine. For in normal times, when war prosperity doesn't make collections better, doctors do well to receive 60, or even 40 percent of what they bill.

The doctors cooperate well in these plans, and best of all, the farmers get proper medical care. They deserve that. They have to be healthy too if they are to pay off their loans and be successful. Even the subsidy is money well invested. It will bring a huge unearned increment in future health, well-being, and sturdy citizenship.

Capsule treatise on farm finance

THE FINANCIAL CONDITION of agriculture is generally sound. Farmers' equity in their own industry is very high. After 4 years of war, agriculture's cash position is excellent—and improving. *But the real danger lies ahead.* It was after World War I that the big rise in farm-mortgage indebtedness took place. *So the present is the best time to prepare for the future.*

Farmers should pay off dangerous debts, such as second and chattel mortgages, just as rapidly as they can, but war bonds might better take precedence over complete liquidation of first mortgages. Conservative farm finance must characterize operations not only for the duration, but for some years after the war ends.

This is not the best time to buy a farm. Already the increase in land values makes such purchase seem a good speculative investment, and much acreage is being sold to buyers who are bent on quick resale. In some localities farm land values have already attained such height that farms cannot be purchased with the expectation of paying for them out of profits on their operation.

Those intending to buy farms should wait until prices are low enough to enable them to pay up out of farm-operating profits. Today it is probably better to rent than to buy a farm. In many instances it is even better to take a job as hired farm labor and get on to things before investing. Returning service men should be warned to protect them from being victimized by false values.

Improvements in farm plants have been neglected for about a generation now, the land having been better cared for than the buildings. Farmers should not, however, undertake a farm building program too soon after the war, going into debt for high-priced building materials. Conservative finance and watchful waiting are the principal recommendations of those most expert.

2-4-D: A compound with this nickname—its full name is formidable—2,4-dichlorophenoxyacetic acid, has turned out to be a good weed killer. Tested at our Plant Industry Station at Beltsville, water sprays containing this compound slew heavy stands of dandelion and narrow-leaf plantain, the pests. A one-twentieth of 1-percent solution was used at a rate of 5 gallons per 1,000 square feet. Grass was not injured. Chickweed, pigweed, wood-sorrel, knotweed, and broadleaf dock also succumbed. Oddly enough 2-4-D has a previous record as a plant growth-promoting agent. Even at current costs of \$3 to \$5 per acre, one could afford to use this on lawns, grass plots, and pastures.

OL in Mexico City

THE Mexico City office of the Office of Labor represents WFA in a branch of foreign relations with a new twist—by agreement between the two Governments, Mexican workers contract with U. S. representatives to serve as soldiers of farm production, to aid the war effort. Under an international agreement, Mexican workers contract to work where assigned and OL in turn contracts with U. S. growers and growers' associations for the workers' services.

These Mexican farm workers are not recruited—they are selected from thousands of applicants. No advertising or circularizing has been necessary. Publicity has been handled entirely by "grapevine," a most effective medium in Mexico.

Started in September 1942 under the Farm Security Administration, the program was later transferred to OL. "Processing" of workers includes selection, medical examination (including chest X-ray), photos for identification, reading, explanation, and execution of the contract, documentation by the U. S. Immigration and Mexican Departamento de Migración, issuance of ration books, and transportation.

The size of the OL staff in Mexico City varies with the demand for workers and the daily quotas. At the peak of the work, in June 1944, there were 96 employees, 90 percent of whom were Mexican nationals—clerks and typists. During that month 17,700 workers—an average of 68¢ men a workday—were sent to the border.

Hands across the border

The chief administrative responsibility of WFA, this program is carried on co-operatively with the U. S. Immigration and Naturalization Service, and Public Health Service, and the Mexican Secretaría del Trabajo y Previsión Social, Departamento de Migración, and Secretaría de Salubridad Pública. Matters concerning the agreement are handled through our State Department and U. S. Embassy in Mexico City with the Mexican Secretaría de Relaciones Exteriores.

Over a 2-year period the program has involved the contracting and transporting of 118,541 Mexican workers of all types, from the Mexico City dweller to the husky, hard-working campesino from the States of Michoacán, Jalisco, and Guanajuato and the slight, quiet Mixteco Indian from Oaxaca. In the latter case OL had to deal chiefly through interpreters, since many Indians speak no Spanish. U. S. doctors have encountered

and eliminated many cases of cruel and unusual diseases, including elephantiasis, onchocerciasis, and pinto, and run-of-the-mill syphilis, tuberculosis, and malaria.

In general the workers are excellent, and production figures on U. S. farms bear this out. Some 63,000 of these men have worked this fall in States from California to Michigan and have given a good account of themselves in the battle of food production.—HARRY F. BROWN, OL, Mexico City.

Labor savers for co-ops

HAROLD HEDGES, acting chief of Farm Credit Administration's Division of Co-operative Research and Service, calls our attention to material prepared by Harry C. Hensley, of FCA, on the labor-time and space-saving qualities of modern equipment used by co-ops. Hensley has just returned to his work in the Division after a year spent as marketing consultant to a Government food mission in Peru.

Like other businesses, co-ops feel the wartime labor pinch. So they resort to labor-saving devices. One co-op which mainly handles fresh fruit and vegetables for canning, found that it could reduce handling costs for this perishable stuff by 50 percent, in addition to saving time and manpower, when it used fork-truck equipment. This nifty gadget will hoist some fifty-odd cases of canned goods easier than you would one case—or maybe, like the editor, you couldn't juggle one!

Before doing so the fork truck is used to transport the goods across the warehouse. Operated by one man or woman it will pick up, transport, stack or tie field crates, boxes, bags, barrels, and other containers quicker than you can say scat. Another inexpensive machine, a portable piler, will stack bags of beans or other containers up to a small mountain of 30 feet, without the aid of either profanity or perspiration. Automatic in operation, only two men are required to service it.

This doesn't mean that old-fashioned hand trucks and so on have gone out of fashion entirely. They are indispensable when mechanical equipment is temporarily unavailable or lacking, or when it will not fit into the space allotted. Many of these new mechanical devices are outgrowths of war industry. But you can probably bring in the wood, or the produce from your Victory Garden, without having to buy one.

Baked apple flavor, sir?

DON'T LAUGH. Maybe they'll be asking you that in restaurants before very long. Chemists at our Eastern Regional Research Laboratory in Philadelphia have learned how to concentrate the volatile constituents of natural apple flavor a hundred to two hundredfold. Even then the concentrate contains only a few tenths of 1 percent of the actual flavoring material. But the aroma is captured and can be put to use.

Most of the apple's flavor is concentrated just under its skin. The aroma depends on the apple variety used, and blends of different varieties will probably prove best in the long run. A concentrated baked apple flavor can be developed by increasing the time or temperature of heating the juice before removing the volatile flavor fraction. It should give a fine cooked flavor to some foods consumed cold.

It costs somewhere in the neighborhood of 60 cents a gallon, labor included, to produce the fine water-colored apple-flavor solution. This can become an industrial byproduct from materials now wasted. It can be used to make a commercial apple-juice concentrate taste like freshly pressed apple juice. It can be used also to flavor sherbets, ices, and fruit jellies, table and coating sirups, bland apple or other sugar sirups.

The principles of the process should be applicable to other fruit and berry flavors. Looks as if it has a great future.

Letter writing

WAR FOOD ADMINISTRATOR Jones has issued a mimeographed sheet giving admirable suggestions regarding the preparation of letters for his signature. *He stresses promptness in handling correspondence as the No. 1 item; if delay in reply is unavoidable, write an acknowledgment.* Make letters brief. Use short sentences and simple words, avoiding the pronoun "I." Answer all questions asked in incoming mail.

Use constructive, affirmative statements. Never be blunt, argumentative, dogmatic, or contradictory. Neither shirk responsibility nor assume responsibility for acts and determinations of government agencies other than your own. Do not criticize the work or programs of other offices, bureaus or agencies. State facts clearly and be consistent. Maintain a cooperative helpful attitude, avoiding even the appearance of irritability.

If all of us who prepare correspondence followed these rules we should serve the public far better than we now do.

Regional Office

A WHILE BACK we were in Dallas at the Southwest Regional Office of the Office of Distribution. Naively we asked, "What does a regional office of O-D actually D-O?", and Marketing Reports Chief, Meno Schoenbach, treated us with rapid-fire description of its manifold activities.

In the vast Southwest over a million farmers in seven States are contributing an avalanche of food to the war program. The regional office in Dallas assists them to get their food marketed, processed, and distributed. It may be Colorado onions, Texas grapefruit, Arkansas beans, Louisiana potatoes, Oklahoma spinach; it may be eggs, in the shell or dried; it may be the handling of set-aside foods for the armed forces, buying for lend-lease, the Red Cross, territorial programs. Unusual marketing conditions, or whatnot—the regional office is in there pitching!

It maintains a close relationship with all other USDA-WFA agencies. It cooperates closely with OPA, WPB, WMC, and ODT on ceiling prices, priorities, labor problems, and food storage and transportation. It is assisted by district and subdistrict representatives in a dozen cities of the region.

Food is purchased to support prices for farmers, as well as to fill direct war requirements. On the other hand, food stocks are turned constantly and sales are made when necessary to cut inventories, the stocks being routed back into trade channels so as to cause the least possible market disruption. School kids, hospital patients, and residents in State welfare institutions are among the citizens who benefit from OD's multiple purchasing and distributing job. Community canning and industrial feeding programs must be given localized attention. Labor and equipment priorities must be recommended on a basis of the individual plant's importance to the war food program.

Several of OD's commodity branches are represented here, and each has its own specialized duties in its particular field—Fruits and Vegetables, Livestock and Meats, Cotton and Fiber, Dairy and Poultry. The Compliance Branch checks regional compliance with War Food Orders and other regulatory laws.

Management, personnel, and fiscal divisions all perform their respective functions. Finally, the Marketing Reports Division conducts its programs of increasing consumption of abundant foods, food-order education, container salvage, household fat salvage, "A"

awards to processing plants. Through the general, trade, and farm press, radio scripts, and recorded programs, speech materials, pamphlets, publications, films and exhibits, up-to-date information is provided on the wartime food-supply program.

In short, you have the parent organization in microcosm, and not so "micro" either, because such a divisional office requires numerous trained employees. Plenty goes on. Here OD programs touch the people—farmers, processors, consumers. Here they stand or fall, insofar as an entire region of seven large States is concerned. That is what makes field offices so meaningful and important.

Office of Marketing Services

IN USDA of November 13, 1944, we presented the Office of Distribution, but one phase of its activities, now in the Office of Marketing Services, was barely mentioned. The slight was unintentional. On the contrary, the functions under the Deputy Director for Commodity and Industry Regulation deserve special consideration. This part of what was OD has a constancy uncommon to war agencies.

Forty to fifty billion dollars worth of farm produce are distributed yearly. Much of this distribution is planned, serviced, and regulated by the Government. Specifically, it is the task of Deputy Director C. W. Kitchen to see that this marketing is orderly and scientific.

OMS maintains a lively market news service that reports the prices, supplies, and movement of more than 100 farm commodities. Its market news reporters haunt the markets in the early hours, mingle with traders, ask questions. They keep 8,600 miles of leased wires buzzing, and are responsible for 16 million market report releases and 800,000 radio broadcasts per year. Through radio, press, and processed publications, they spread the marketing and food distribution information needed by farmers, food processors, and the public.

Standards and grades

Buyers want to know what they are buying. Federal and Federal-State graders and classers know the answers. There are U. S. standards for wool, cotton, grain, tobacco, meats, livestock, butter, eggs, cheese, poultry, fresh and processed fruits and vegetables, and other products.

After standards have been established the next step is grading. There is grading at the shipping point to apply the

Federal standards, grading at the terminal point for a follow-through check-up; or inspection at a cannery or a Federal laboratory. Thus, during 1944, 375 million pounds of butter and 8 billion pounds of beef were graded; 361 million pounds of dry-skimmed milk was inspected. If all the canned foods inspected were loaded on freight cars, the line would extend from Washington's Union Station to Texas. (For details on canned-goods grades see Reward of Merit, USDA, October 16, 1944.) There exist 158 cooperative agreements with State agencies to carry on these activities.

In order to be sure that meat is sound, wholesome, and fit for human consumption over 118,000 carcasses were inspected by the Meat Inspection Service in fiscal year 1944. The cost of this protection to American consumers was only 7 cents per carcass. The volume of meat and meat-food products processed under Federal supervision amounted to nearly 17 billion pounds last year.

If honest marketing practices are to be maintained, regulatory statutes must be enacted and enforced. OMS administers about 25 of these statutes, such as—the Agricultural Marketing Agreement Act, the Commodity Exchange Act, the Perishable Agricultural Commodities Act, the Packers and Stockyards Act, the 28-hour Law, the Cotton Futures Act, the Insecticide Act, the Federal Seed Act, the Naval Stores Act.

Test tubes and freight rates

It is impossible to probe Agriculture without finding a couple of test tubes bubbling around. OMS has its share on the bunsen burner. The strength of wool fibers must be determined. Seed are subjected to germination tests. A spectrophotometer at the Beltsville Research Center recently proved that thiamine was missing from large quantities of bread.

The most recent assignment is formulation, administration, and compliance in connection with the large number of Food Orders required to carry out a wartime food distribution program. Other functions are the operation of industry advisory committees, the planning of storage programs, supervision of warehouses, and getting adjustments in freight rates.

Most of these marketing services existed before the war. Essentially the only change that the war has brought is in the volume and intensity of operations. Peacetime will find a continuation of the same services—for marketing is as integral a part of American agriculture as production itself.—SOPHIA PODOLSKY, OD.

Another rugged individual

T. M. CAMPBELL, Extension Service field agent with headquarters at Tuskegee Institute, Ala., has arrived in Liberia with Dr. Jackson Davis, associate director of the General Education Board. To join the British members of a four-man committee which will make a 6-month tour of West Africa, studying approaches which may be adapted to the development of a mass-education program in that region of the continent.

Mr. Campbell, whose extensive territory covers seven Southern States, was selected for this important research mission because of his wide training and experience in southern agriculture. He was the first Negro to be appointed an extension worker of the Department. It was back in 1906, during the tenure of Secretary James Wilson, that he was placed in charge of an experimental movable school which Dr. George W. Carver had designed at the suggestion of Booker T. Washington.

The school operated out of Tuskegee, serving the colored farmers of Alabama. With it agent Campbell carried modern methods of farming and home-making right up to the doors of the colored farm people of Alabama. It is thought by members of the General Education Board and by representatives of the Phelps-Stokes Fund, cosponsors of the West African educational survey, that a similar approach may be used in developing a mass agricultural education program in Africa. Such an educational program, it is pointed out, will mean higher nutritional standards and better living, the first steps toward achieving freedom from want in this area.

Campbell has a passion for helping people to get enough to eat, because he knows what it means to go hungry. The youthful, smiling face of this tall, stooping extension worker sobers into sadness even now as he tells of an experience in hunger which he and his sister suffered more than 50 years ago.

He knows what hunger means

As Mr. Campbell tells it: It was lunch time his first day at school. All of the other children got out their lunch buckets and began eating, but he and his little sister had no bucket, so they went home, which was nearby, but there was no lunch there either. Young Tom's mother was dead, and his father, an itinerant part-time preacher, was away on one of his missionary journeys. Not to be outdone, resourceful Tom went into the field and dug two sweetpotatoes,

one for himself and one for his sister Pearl.

When they returned to school eating the raw potatoes their schoolmates poked childish fun, saying, "Oh, look at Tom and Pearl eating raw potatoes for dinner!"

Tom, who was barely six, was deeply hurt. Crying as though his heart would break, he stooped down by the side of the schoolhouse and tried to hide the potatoes. Then a kind and understanding girl in the crowd came over to them and said, "Don't cry, you may have part of my dinner."

Tom has never forgotten that girl who befriended him and his sister, nor has he forgotten to try to pay her back a thousand times by helping other people to have enough to eat.

Before taking a plane for Africa, Mr. Campbell came to Washington and stopped in to say goodbye to the Secretary and to the folks in Ext. Said he to Secretary Wickard, "I want to visit the home of some of the people in Africa, find out what they are growing and how well they are eating."

It will not be too difficult for him to get into the homes of the Africans, make friends with them, and find out how best a program may be developed to help them. Although he will not be able to speak their languages and dialects, when his booming baritone voice breaks into song the Africans will know that he and they stand on common ground.

The survey which will be made largely by plane will cover parts of Liberia, Sierra Leone, Gold Coast, Nigeria, Cameroo, Belgian Congo, and Angola.—SHERMAN BRISCOE, Inf.

Write it down

FOR A LONG TIME the extemporaneous speaker who could produce a seemingly endless and unfortunately spontaneous gush of oratory was much admired. Then radio came along, network time cost real money, the new industry just couldn't afford to let every Tom, Dick, and Harry say anything he pleased, however inane, incorrect or silly, to the whole country at once, so manuscripts came back and gained prestige.

The basic trouble with reading from manuscript is that the majority of persons, however animated when speaking extemporaneously, seem to die when they begin to read. The art of dramatic reading is too little taught and too much neglected. It is perfectly possible to read with such expression and animation that your audience will not walk out on you, even if it isn't raining outside. For you may not be interesting, even speak-

ing without manuscript or notes. It may merely be raining or cold outside, and that explains why you hold your audience!

But the speaker who has carefully thought out and written down what he intends to present has several advantages over the extemporaneous gusher. He can arrange his subject matter in logical sequence; he can properly balance his various subtopics, talking just as long on each as required; he can present his material with some literary finish; and, above all, *he knows that when he runs out of manuscript he is through*. He doesn't have to hesitate, mumble "Guess that's all I got to say," or make a half dozen perorations before he hits on one that will enable him to sit down.

Or are we wrong, as editors so often are? Should the address be written down or shouldn't it?

Over-all Federal personnel

TESTIFYING before a Congressional committee the other day a Civil Service Commissioner hazarded the guess that there would be a cut of 100,000 in over-all Federal personnel, Washington and field, by June 30, *on the assumption that the war in Europe was ended by then*. But at the moment there were 245,000 unfilled vacancies, 85 percent of which were in the Army and Navy Departments.

Turnover was tremendous—161,000 a month, or half as large again as anticipated. For instance, take the place where all Government checks are written, Treasury's Division of Disbursement. It was anticipated that 58 million checks would be written this year; now it looks more like 85,000 million, including 16 million tax-refund checks. Yet the personnel turn-over here runs 50 percent. Incidentally, a good check writer can prepared 700–800 checks a day; but many can do only 300–400, the stingy things. It costs about 6½ cents each to prepare Government checks.

THE USDA is not, however, a war-swollen agency. There are approximately 39,000 fewer employees in USDA-WFA than were in the USDA 4 years ago. Department programs are so diverse that they expand in peacetime when effort can be turned to other things than food production and distribution. There is promise of increased employment in the Department after the war ends; changes in thinking regarding its activities are already under way.

Antidote for Bureaucracy: Karl de Schweinitz' article of this title, in November 1944 Survey Midmonthly, merits your reading.

G. I. Joe, farmer

IN USDA for October 2 Assistant Secretary Charles F. Brannan told about Department proposals for action under the Serviceman's Readjustment Act of 1944. Brig. Gen. Hines, Administrator of Veterans' Affairs, and Assistant Secretary Brannan recently held a joint press conference announcing:

1, That the former had designated the USDA as cooperating agency to aid in determining whether guaranty of farm loans should be approved for veterans; 2, that the membership of the Veterans' Agricultural Loan Committee will be the same as Farm Security Administration's Bankhead-Jones Tenant Farmer Committee, with the addition of one member who must be a veteran, preferably a businessman.

Farm Credit Administration will make appraisals. Functions of the Extension Service County Advisory Committees remain unchanged, though these committees may be bypassed by veterans who have already spotted the farm they want in a community they know well. They then apply directly to their county loan committee. General inquiries can be directed either to FSA or to county agents.

Brief but important

Twin editorial retirements: So rarely do two editors retire from the same Bureau on the same day after the same length of service, that the Bureau of Entomology and Plant Quarantine gave a reception in honor of the event of November 30. Retiring on that day at the age of 70 years were John P. Schumacher, associate technical editor and first assistant in the Bureau's editorial office, after 28 years of Federal service, and Walker E. McBath, assistant technical editor, with 30 years total service. Each had completed 18 years in the same editorial office. Before entering EPQ Schumacher was acting editor in the former Bureau of Soils. Much earlier he was superintendent of public schools in North St. Paul, Minn., and editor of a weekly newspaper in Grand Rapids, Mich. Mr. McBath's first job with USDA was as a photographer. He has maintained photography as a hobby ever since. For 13 years, he was a missionary in Guatemala, and, as a minister of the Presbyterian Church, he has held several domestic pastorates.

Hero: Dr. William T. Bell was formerly veterinary livestock inspector in the Atlanta force of the Bureau of Animal Industry. He was called to military duty in March 1941; a year later he went to the South Pacific. He spent 10 months in New Caledonia, then was on Guadalcanal from January 27 to September 15, 1943. He went next to India where he was attached to Merrill's Marauders with which he spent 4 months in Burma. He received the Purple Heart and his organization was cited by the President; he is now captain in the veterinary corps with two combat stars to his credit. Know any more heroes? Tell us about them.

Management: The Society for the Advancement of Management now has an Agricultural Management Division, which President Milton S. Eisenhower of Kansas State College heads. You will remember Milton as Associate Director of the Office of War Information and, earlier, as USDA's Director of Information.

Penicillin again: J. G. Brown and Alice M. Toyle report in Science (11 December 8, 1944, 528) from the Arizona Agricultural Experiment Station, that crude penicillin has been found to cure crown gall on Bryophyllum (life plant, and the like). The strain of penicillin used came from USDA's Northern Regional Research Laboratory. The investigators believe that penicillin should prove valuable in treating galls on nursery stock, also on trees and plants. Cure of the first infected tree in an irrigated orchard would frequently save the entire planning. Cost of the treatment is negligible. The crown-gall organism is, incidentally, gram-negative, and such organisms usually resist penicillin.

Post-war cotton problems: Secretary Wickard's statement on this subject before the Special Committee of the House Committee on Agriculture on Post-War Programs, December 4, drew a most interesting policy line and merits thoughtful, attentive reading. If interested, ask Press Service, Office of Information, for USDA 3691-44.

Memory book: William A. Taylor retired as chief of the Bureau of Plant Industry on December 31, 1933, having served more than 20 years. He is now 81, but is so well and favorably remembered by his former associates that they recently presented him with a beautifully bound illustrated memory book, containing letters, group photographs, and other items in which he would be interested. The book was a lunch-time and after-hour labor of love. It was presented to Dr. Taylor at his home in Columbus, Ohio, by Dr. J. R. Magness, an amazing tribute to a former employee so affectionately remembered after a dozen years in retirement.

Oberly Award: W. P. Kellam, chairman of the Oberly Memorial Award Committee, asks us to announce that the tenth award will be made in the spring of 1945. The prize of \$100, with interest on the Fund for 2 years, goes biannually to the compiler submitting the best bibliography in the field of agriculture or the related sciences. For details address Mr. Kellam at the Library of West Virginia University, Morgantown, W. Va. Miss Oberly was the late librarian of BPI.

Write the editor: Unless an editor hears fairly regularly from his readers he operates in the dark. We had quite a flurry of letters for some months; now these have slackened. This may mean that USDA pleases you, but it could mean that it bores you. We can lie awake nights seeing green ghosts while contemplating the latter possibility. Knock or boost—write the editor won't you?

Cabbage vitamins: If you throw away the 5 or 6 wrapper leaves on a head of cabbage, the flaring outside ones that rarely reach the table, just remember that they contain from 1½ to over 3½ times as much of vitamins B₁, C, and B₂ as do the inside leaves. Cabbage also commonly contains a thousand times as much vitamin C as vitamins B₁ or B₂. Its wrapper leaves, which correspond to the large leaves of turnips and kale, contain as much of these 3 vitamins as, or even more than, more common greens. (Courtesy our Regional Vegetable Breeding Laboratory, Charleston, S. C.)

Meet Ladd Haystead: We had a flattering letter from Ladd Haystead of Fortune, author of Meet the Farmers, saying:

"Thank you so much for . . . the copies of USDA. Not only do I think that bells should be rung and flags flown in honor of your sprightly sheet, but I am more than cheered to see how often you mention the very topic I complained of, namely, the unreadability of so much agricultural publication. . . . I earnestly hope that you continue your campaign to get the good folk of your Department to understand that agriculture is not necessarily a travail between obituaries and the sesquipedalian. Although your masthead says that USDA is only for employees, please tell me on what sort of a black market I can acquire a regular subscription to the sheet. Having gone through the copies you sent me, I shall be completely unhappy unless I see it regularly."

Scientific method: It is a fallacious belief that the less controlled an experiment has been, the more practical its findings become. As a matter of fact, observations secured under controlled conditions are inextricably associated with the particular combination of variable conditions that happen to prevail. Their value in predicting what will happen under another combination of variable circumstances cannot be assessed. The use of statistical methods to predict what would have happened if proper experimental control of conditions had been realized is but a poor substitute for such control.—H. H. MITCHELL, University of Illinois.

Nursery and seed trade catalogue collection: In the National Horticultural Magazine for October 1944, P. L. Ricker, PISAE, and Magdalene R. Newman of the Department Library, describe the collection of nursery and seed trade catalogues, growing since the early 1900's in the Library. This collection has long been useful to research workers tracing the history of varieties, but for the past 2 years it has been called on even more frequently, because of the great interest in Victory Gardens.

Short-handed: If USDA seems to have slipped recently, blame the editor in person. The assistant editor has been out ill since the first week in November—hopes to return the first of 1945. Then the editor's youthful but able pinch-hitting, secretary dove into a spell of shingles and left this a one-man job, along with other jobs the editor has to attend. Well, anyway, Happy New Year!

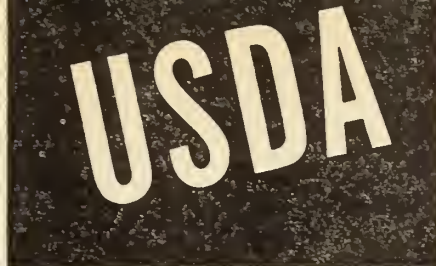
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FOR JANUARY 22, 1945

there were accelerated rates of increase the world over. Then have we outgrown the possibility that world agriculture will support the world's people?

Rough estimates indicate that there are 4 billion acres of arable land in the world. That is about 12 percent of all the land and upon it the world must depend for food. While it allows scarcely 2 acres per person, the figure is less than 1 acre per person in some countries, though certain nutrition scientists hold that 2½ acres of fairly productive land are needed to produce an adequate diet for one person.

Of course the quality and productivity of the land vary. It is also possible greatly to increase the production on much of the land by use of improved methods of fertilization and cultivation. Another thing is that the rate of natural population increase is declining in the western world. Aging or aged populations present many new types of adjustment problems to world agriculture.

In actuality the earth is still a potential Eden with adequate room and food resources for additional millions. Modern farm technology (including not only machinery but also soil-conservation farming methods), transportation, storage, and food processing have made it physically possible for the world to maintain all of its population on adequate diets. The main problem facing us is the practical realization of existing potentialities.

The field

THE FIELD is where WFA-USDA employees are concentrated. There they are, six or seven of them to every one of us here in Washington. Not only must our house organ take them into consideration, it should be biased in their direction on a basis of numbers. Our only regret is their apparent reluctance to send USDA current items. On the other hand, frequent editorial visits among them leave no doubt that they like the house organ and that it conveys to them what they want to know.

In October we addressed the spirited USDA club in Little Rock, Ark., at a luncheon meeting in a downtown hotel. T. O. Fatherree, assistant regional director of the Farm Security Administration, in charge of farm ownership, was chairman. Stewart Bryan, of the Bureau of Agricultural Economics, later explained the techniques and mysteries of crop estimating to us. We learned about FSA medical plans in Newton county, Miss., and in Nevada county, Ark. Finally, at a 2-hour bull session on rural medical care, a voluntary fortnightly affair in which FSA and BAE employees here, and

heartbreak, and the weariness of it all we seek to understand but cannot feel. Fed into the insatiable maw of Moloch, they look back at us with quaint, wistful longing.

The disparity between us ever widens. Yet they know that if anything constructive is to come out of this holocaust, we here must produce it. Are we seeking to fashion it? They are saving our way of life. Are we making our way of life worth saving? All that we can do is so paltry—a few bonds, a little blood, some Red Cross work. None of it can compensate even in part for their experiences in a single landing under fire.

We should, by rights, live solemnly, laugh warily, work gravely—yet that is perhaps not what they would have us do, they who are jocular in the midst of horror. But they would have us fight inflation, keep the necessary civilian rules strictly, be generous to our fellows. They would have us do all we can in our small civilian way to further the cause. They would have us preserve here for their survivors a way of life fit to offer them on their return.

If we cannot do these small things they have bled in vain and our shame is abject indeed.

World view

IN 1650, it is estimated, only 500 million people lived in the world. In 1940, there were 2 billion. Why the change?

In the old days food deficiencies and ignorance about basic principles of diet and sanitation produced appalling death rates, even in normal times. Increase in population was slow and irregular until a general improvement in living, which began in the seventeenth century, made its effects felt. Agricultural, industrial, and commercial revolutions brought in train assured food supplies, public sanitation, medical science, general education, and improved consumer incomes.

Increased agricultural productivity, relative political stability, and control of famine and epidemics were also influential factors. Population expanded and

Just a letter

IT WAS just three rather primly typed pages. They blew in from the South Pacific. But they brought with them not the healthful tang of ocean air. Instead they were freighted with the grime, mud, smoke, sweat, weariness, stench, and searing death so common there. They seemed so alien, so out of place, in our comfortable office and home environment. The job, the boss, the whole Department shrank in magnitude.

It was just a fellow in the printing section, now a Marine sergeant, who wrote them. Not long since, in the vast inscrutable emptiness of the misnamed Pacific, he had met up for an hour with a guy from our personnel and administrative services, now in the Navy. Walter Conway and Ed Waymack of Information—for a little while this pair talked far out on some South Pacific isle about the small familiar things back here.

We are among those small things. We sacrifice not—neither do we stumble fatigue-laden through mud, darkness, heat, and horror, watched by cruel eyes all around, beaded by guns everywhere, marked for the endless silences of death. They go they know not where, and earth, sky, and air consume them, and many of them are no more. "The incredible bravery of these kids," writes Conway:

"They fight *despite* fear. They fight *despite* everything — *despite* snipers, mortars, jungle rot, dysentery, wounds, fever, malaria, mud, swamp, insects, caves, rain, intolerable heat, and cold knifing fear which knows no counterpart. They go only one way—forward! That's for keeps. They slough their way through the worst kind of stink, swamp sucking at their hips a goodly part of the time, knowing full well that only a major part of the enemy is in front of them. Almost as many get it through the back as through the heart."

We here have no experience by means of which to measure either their effort or their sacrifice. Some casual, brooding chance has thrown its arm about us to protect us from this death in life they know so intimately. The stink, the

a few outsiders participate, we learned still more. Incidentally Dallas employees have a fine medical insurance plan at low rates.

At Dallas, W. M. Ward, of Farm Credit Administration's emergency crop loan work, took the editor downtown to the Office of Distribution where Meno Schoenbach, regional information man, was most cordial. Workers from other agencies represented in Dallas—FSA, the Bureau of Entomology and Plant Quarantine, and the Office of the Solicitor in particular—came in from all over the city to talk and lunch with the editor and one another. Then we met county extension agent A. B. Jolley in the street and rode out in the country with him a few hours while he attended business.

Topside in New Mexico

In high-altitude Albuquerque the USDA club assembled in the Civil Service examining rooms in the Post Office Building. Henry F. Shepherd of Personnel, who happened to be passing by, and the editor both spoke. FSA's Glen Grisham, State supervisor, was chairman. We visited Rex King, Forest Service information man for Region 3, and regional forester Frank C. A. Pooler. Soil Conservation Service regional information man Beck was most helpful. We also visited the branch Library here and found a shelf of books that had been recommended in *USDA*!

In Denver, regional solicitor Spurgeon E. Paul provided us with an office, a typewriter, and automobile transportation. We looked in on Ellery Scannell, area representative, at the Office of Labor, and found him up to his ears getting seasonal Mexican farm workers back home again. We discussed grasshoppers with Dr. Claude Wakeland of EPQ, which maintains its Division of Grasshopper Control here, and we addressed a much overstuffed USDA club in a room much too small for it in FSA's headquarters. About 100 were there, sitting, standing, and overflow.

Finally, we stopped in OD's Chicago office between trains to renew our acquaintance with Frank Blood, and found Judd Wyatt, newly on hand from Atlanta, to be regional information man. A hurried call was sent out and a score or so collected in Director Pollock's office to see our slides on Department history and to hear some talk about the same. A greater demand for the school lunch program than available funds permit, and the cooperative campaign with Interior's Fish and Wildlife Service to increase domestic consumption of fresh and frozen fish occupied much of the staff.

Patio information center

DOWN IN the Patio of USDA's main administration building the Office of Information maintains a reception unit for the distribution of free publications to the public. Here the end product of our laboratories, the largest research institution of its kind in the world, and the information created by our economists, sociologists, and other professional workers, is dispensed gratis. Here bulletin meets public. And does public ask questions? Inquire of Mrs. Eleanor Clay and her assistants down there.

The questions are as varied as those who ask them, and the latter come from all parts of the U. S. and the seven seas—engineers, housewives, Egyptians, Nicaraguans, Brazilians, East Indians, Russians, Chinese, British, soldiers, sailors, marines, cartographers, writers, chemists, salesmen, farmers, economists, historians, nutritionists, industrial specialists, reporters, anthropologists, ethnologists, Palestinians, Colombians. * * *

What do they want to know? How many Secretaries of Agriculture have there been and what was the tenure of each? How do you run a farm in Guam? How can an Indian Rajah's palace be modernized with air-conditioning and refrigeration? Do termites leave a trail of sawdust? Why do my chicks wheel around in circles and fall over when they try to walk? I want to write an article about the "imput" milk-producing plant; tell me all. (It was not an "imput" plant, and it didn't produce milk, but a fluid used to increase lactation!) Childbirth, allergy, dahlia raising, commercial freezing of fruit, Rocky Mountain spotted fever tick, employment in Alaska, treatment of undulant fever * * * one and all they ask to know.

Some have come far, been often rebuffed and rerouted, have caromed off specialists galore, till they have acquired an angry my-taxes-wasted look in the eye. Often USDA-WFA workers, who should have troubled themselves to end the victim's troubles, instead carelessly passed him along. Few things can make taxpayers angrier than that, so don't try it.

"Information? give!!"

The unit devotes itself to solving their problems. No one gets the brush-off. Visitors are encouraged to be communicative. The inarticulate are rendered loquacious. The shy are made to feel at home. Bulletins do not always suffice. Then contact with the right specialist is arranged, by telephone if need be. The Inf. receptionist must not fumble and

goes on—the buck. She must know what goes on—when, where, and how.

All is not sweetness and light for her either. She hears the Department's praises sung many times, it is true, but it is often damned with faint praise, occasionally just plain damned.

One day a torrid gentleman approached just about to ignite in spontaneous combustion. From 9 until 3 he had been shunted from office to laboratory, from underling to subordinate, and his questions went unanswered. Included in the parade of foolish Government servants who had eased him along were the names of high-powered professionals who should have known better. But now he said sternly: "Your sign says 'Information.' Well, give!" The unit made good.

He snorted at sight of the publication handed him. After all, it was a sort of shoddy wartime mimeograph—no fine paper, no dressy cover, no seductive typographical ornamentation. But he read a few paragraphs, mollification ironed out his wrinkled brow, irritation drained from him in intangible rivulets. Finally he said: "At long last, here's what I wanted. Why didn't they send me here in the first place?"

That was one of the few times that the unit was stumped for an answer.

Frank Hancock

WHEN Frank Hancock became Farm Security Administrator, FSA was under fire, and rumors were current that he was appointed for the sole purpose of liquidating the agency. The rumors were short-lived, however, for Hancock immediately said:

I am not here to serve as a pallbearer at FSA's funeral. I came into this job with a sincere respect for the underlying principles of this agency and for the men and women who are carrying them out. I believe its work should be continued and strengthened.

The new Administrator lost no time in demonstrating that he meant what he said. Within 1 week after his appointment, Hancock went up on Capitol Hill to urge a deficiency appropriation for FSA—and he got it. On the afternoon of the same day, he appeared before the special committee of the House investigating FSA.

On both occasions, he outlined his plans for putting the agency's operations on a sound businesslike basis so that it could continue to give the fullest assistance to deserving low-income farmers and at the same time have the support, understanding, and appreciation of its former critics. He has done just this.

Under the guidance of this affable and straight-shooting former North Caro-

lina Congressman, most of the criticism that was once aimed at FSA has been dispelled. He has abandoned minor experimental programs and has urged expansion of the major phases of FSA's work which had proved their worth and success. He believes FSA will have a vital role in post-war agriculture, especially in assisting veterans who want to farm.

As Administrator, Hancock has maintained the frankness, friendliness, and sincerity for which he was known in Congress. These characteristics are evident when he speaks thus of the future:

The American people, their Congress, and their President have recognized the need for the type of service FSA was set up to provide. So long as there is rural poverty, this democracy must be prepared to see that its low-income farmers are given a chance to make good, and by their own industry become more useful citizens. This is the job of FSA, and we have prepared ourselves to carry it out.

From Oxford to FSA

Hancock was born and reared in Oxford, N. C. The son of a local druggist, he was educated at the Horner Military School and the University of North Carolina to be a lawyer. Admitted to the bar in 1916, he practiced in his home State for a number of years. His interest in politics developed during this period, and in the twenties he won election to the North Carolina State Legislature.

In 1930 he was elected representative to Congress from the fifth district of his State and was reelected for succeeding terms until 1938. While in Congress, he was a member of the House Committee on Banking and Currency and was a leader in the fight to enact legislation for the protection of home owners and bank depositors. He also was a member of the Steering Committee of the House, organized to prepare legislation to pay off adjusted service certificates held by World War I veterans.

In 1939 Hancock was named a member of the Federal Home Loan Bank Board and director of the Home Owners' Loan Corporation and trustee of the Federal Savings and Loan Insurance Corporation. Later he served with the Defense Plant Corporation.

Among FSA's division chiefs, his ability to get people to work for him is regarded as one of Hancock's greatest administrative talents. He doesn't command people to do what he wants done—he invites their cooperation and their ideas and stirs up their enthusiasm. When it comes to following through on a job, he sets the pace for his employees.

"Frank drives himself hard," Acting Assistant Administrator Paul Doyle said recently. "He's the greatest fellow I know for using direct methods to get a job done.

The people around him have to struggle to get him to recognize the necessity for a certain amount of essential routine."

Few people talk to Hancock long without learning that he has four boys—three in uniform—three girls, and "a wonderful wife." Two walls in his office are covered with their pictures. The photographs lend Hancock's office a friendliness and informality that is typical of the man himself. December 15, 1944, Hancock was designated President of Commodity Credit Corporation. He will continue to serve as FSA Administrator.—PATRICIA MARSHALL, FSA.

Bankhead-Jones Laboratories

THE BANKHEAD-JONES ACT of 1935 provided for regional laboratories to help solve particular agricultural problems which arise in each region of our great Nation. They are administered by the Agricultural Research Administration, working in close cooperation with the State experiment stations, and are called the Bankhead-Jones Laboratories, to distinguish them from the four Regional Research Laboratories of the Bureau of Agricultural and Industrial Chemistry.

There are nine of these laboratories, four each under the Bureau of Plant Industry, Soils, and Agricultural Engineering and the Bureau of Animal Industry, and a ninth directly under the ARA Administrator's supervision. They were all established between 1935 and 1939. Though their research programs tend to be of long-time character, many of them already have significant accomplishments to their credit. We have room merely to list them here, giving some brief idea of the kind of work they do:

The laboratory at Charleston, S. C., seeks to develop better vegetable varieties for the South through selective breeding. It has already released several good, well-adapted varieties of snap beans, cabbage, sweet corn, peas, and wax beans, the last in cooperation with the Florida experiment station.

The laboratory at State College, Pa., is devoted to pasture improvement. It lays emphasis upon the improvement of pasture productivity in the Northeast, through breeding better varieties of grasses and legumes. Promising strains are further increased and improved in the experiment stations of a dozen States in this region. Pasture renovation is also studied.

The laboratory at Urbana, Ill., endeavors to improve soybeans for industrial uses, also through breeding and selecting of improved varieties. Nurseries maintained in cooperation with the North Central and Southeastern experiment stations are used in the tests. Established varieties are recommended for areas where best adapted, and five wholly new varieties have been released.

The laboratory at Ames, Iowa, is concerned with swine improvement through breeding, also in cooperation with State experiment stations. Increased productivity is found

to result from hybrid vigor induced in certain crosses of inbred lines, even within breeds of purebred pigs.

The laboratory at Dubois, Idaho, undertakes to increase the economic value of range sheep through breeding. Open-faced ewes have been shown to produce 12 percent more pounds of lamb than wool-blind ewes. Breeding to eliminate heavy skin folds on Rambouillet sheep has been shown to be desirable.

The laboratory at Auburn, Ala., works on communicable diseases of domestic animals. It has shown that coccidiosis of calves can be controlled by specified management practices, and is now actively seeking improved diagnostic and control methods for John's disease.

The laboratory at East Lansing, Mich., works to improve poultry viability. It is trying to find out how a certain complex of diseases, now causing about 40 percent of our poultry mortality, can be controlled. Disease-free stock has been developed that can be used in studying the transmission of the diseases.

The laboratory at Riverside, Calif., is investigating the relationship between the salinity of irrigated soils and plant growth. It gathers data on water tables, outlets, and the rate of water movement through soils of the region. In the first known controlled experiments on the salt tolerance of a tree crop, it has shown that peach trees cannot be grown successfully where there is a certain concentration of salts in the soil.

The laboratory at Ithaca, N. Y., is a triple-play affair studying nutrition from soil to plant to animal or human beings. What areas have soil deficiencies which render feeds or foods produced thereon deficient in certain nutrients? How can such a condition be corrected? The laboratory has a comprehensive program in basic research, and among other things, has made interesting findings on the effects of light intensity upon the ascorbic acid (vitamin C) content of plants.

Management improvement

THE EDITOR attended another conference on management improvement and manpower utilization the middle of December, Under Secretary Hill in the chair. Mr. Hill had a big book in which were recorded 200 case reports of progress on this program, large and small, by all bureaus and agencies, yet scores of good examples had not yet been written up and entered. War Food Administrator Jones left an important conference to compliment the group personally on their accomplishments and those of other employees concerned with this continuing program.

For this special emphasis on better management and manpower utilization is not an emergency, but a sustained project. It really represents an intensification of interest in certain normal aspects of our work. Any agency which reports that it has completed the program and is doing as well as it would be possible to do is simply mistaken. Mimeographs giving a concise description of the job of key management representatives, and signed by Mr. Hill, were distributed.

There was a panel discussion by representatives of Forest Service, Commodity Credit Corporation, and Bureau of Agri-

cultural and Industrial Chemistry. Mr. Hill emphasized the fact that the primary objective of the program was not to dispense with personnel. The wartime situation had already reduced personnel below the point of safety. It is a question of getting our work out promptly and efficiently with such personnel as is available, and of functioning well with fewer workers on the job.

Because one man realized that building a ship in 280 days, the record for the first World War, was not doing as much as could be done, American shipbuilders began to turn ships out in 30 to 40 days and thus defeated the submarine in this World War. As Mr. Hill said, we must realize that things always can be done more efficiently and more promptly than heretofore. Open discussion followed, the chairman insisting all have their say freely, as he was willing to entertain a suggestion that the Under Secretary do more work, if it came to that.

Remember this program. You will continue to hear about it. It will carry on as long as there is a Department of Agriculture.

Stenographers, attention!

A USDA teacher of stenography (Graduate School) who might well have represented our veiled effort to abolish her specialty (see Dictation, *USDA* November 27) was instead very kindly and helpful. She told us several interesting things which we should like to pass along.

Outside Government service a stenographer is not just a stenographer. She is a person, an individual. An official in the bureaucracy of private enterprise expects to hire and normally secures as secretary or stenographer a person whose other qualifications, including general education, make her especially valuable to him.

Unfortunately the Civil Service does not make such distinctions. Provided a person qualifies in stenography, her other qualifications are disregarded, at least at the starting grade. She may be well or poorly read; she may have a large or a very limited vocabulary; she may be educated or may merely have been exposed to an education which never took.

The customary system of shorthand has very obvious and confusing limitations. Many words are so vaguely suggested, or there are so many opportunities for the stenographer to fill in with private symbols of her own (which puzzle her later), that what comes out of the notebook often bears hardly any family resemblance to what went in.

Furthermore, you cannot get out of shorthand any more than you put into it. If you do not read widely, are not educated, and have a limited vocabulary, your expertness in stenography is small compensation. You cannot hope to compare with some well-read, well-educated person, with a rich vocabulary and a specialized interest in two or three subjects upon which she is highly informed. Wherever they start, such people do have more opportunities to get ahead.

Things being as they are in Civil Service, however, incentive is lacking for a person to be a top-grade stenographer at the start. A woman with a degree in law, in some science, or in English may start in grade 3 or 4 right along side high-school graduates who can barely read. This ought not to be. Discussion is invited. The editor is signing off here.

Brief but important

Stop the press! We don't manage to keep up with WFA's rapid transformations, but we're trying. Amendment to Administrator's Memorandum No. 27, Revision 1, appeared January 5. It placed the Office of Basic Commodities, the Office of Supply, and that part of the Office of Marketing Services which deals with the school lunch and direct distribution programs (under Section 32, Public 320, 74th Congress) in the Commodity Credit Corporation as of January 1. One CCC vice president will assume responsibility for all program operations previously assigned to the Director of Basic Commodities; another will assume that for operations earlier assigned to the Director of Supply and to the Director of Marketing Services—insofar as the functions of the latter are affected.

To G. I. Joe and Jane: The little mimeographed out-of-hours news letter Office of Information employees sent to those in the armed forces was especially spiffy for Christmas. It carried a message from Director Himebaugh, autographs of all hands, the usual news items, and was bound in a holiday cover of green blotting paper, hand-decorated on the front. Since about 100 of this issue had to be prepared, somebody really worked on this. Phyllis Read, Doris Cope, and June Collins (who has now left us) comprise the editorial board of this little news letter, which is written in so spritely and captivating a style that our writers hang their heads in shame at sight of it.

Good batting average: Two clear hits were chalked up by Lt. Comdr. Nelson D. Salmon and his crew in a fast game during the Salpan invasion. The plays retired the other side. Commander Salmon was an assistant engineer in the Forest Service, now on military furlough from the California region. According to press reports, he "threw his booms" at an attacking Jap torpedo plane which swooped down on his troop transport. He ordered the booms swung about like baseball bats in the hope that they would distract the Jap pilot. One boom did, slapping to the deck the torpedo which broke open and injured several, including Salmon, but didn't explode. As the plane made a second run, the wenchman took a swipe at it with the big boom, scored a hit, and the craft plunged into the sea.

Memo from: Henry A. Donovan, Assistant Chief, Bureau of Agricultural and Industry Chemistry: "I thought you would be interested in the quotation below from a letter which I have just received from one of the young men of our Bureau who is now in the service: 'I found an article in the last *USDA* that caught up with me, which I had been looking for for some time—a write-up on AIC—I thought I had missed it and had started to be a little disappointed that I couldn't show the fellows the record on the Bureau. I suppose I have about the best "per copy" circulation in the country, since I really share mine with the fellows interested in agriculture as a post-war pursuit and with those interested in learning what their Government is doing for agriculture.' The letter is from Donald R. Ellis, of my office, who is now at Camp Livingston, La. Apparently he not only looks forward to receiving the *USDA*, but he has a number of friends at the camp who enjoy it as well."

Fireside heroes: Geo. W. Kimball, Forest Service, Albuquerque, reports that 8 *USDA-WFA* offices in that city, which have only 8 percent of the Federal employees there, contributed 17 percent of the total local Community Chest subscription.

Revised mimeographs: *USDA* mimeographed document No. 6, now entitled "Important Recent Achievements of Department of Agriculture Scientists," was revised as of January 1, 1945. We have also tentatively revised No. 5, the abridged list of top *USDA-WFA* officials. Copies are available if you want a few. If you know any editors or writers who could use No. 6, tell them about it, or write us here.

Dr. Simons retires: John P. Simons, veterinarian, Bureau of Animal Industry, retired from active service (optional), December 31, 1944. He entered BAI as a meat inspector September 1908, and later served in livestock disease eradication in the Middle West. During the last 10 years he served as special supervisor in eradicating tuberculosis of poultry and swine with general supervision over this work in 12 Midwestern States. The eradication of avian tuberculosis is considered one of the most difficult tasks the Tuberculosis Eradication Division has been called on to direct.

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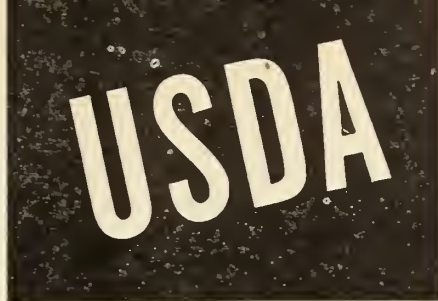
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FOR FEBRUARY 5, 1945

take of iron and niacin by one-fifth and of riboflavin by one-seventh.

It is anticipated that the same total of milk and milk products will be available to civilians in 1945 as in 1944, hence our supplies of calcium and riboflavin should be similar. Civilian supplies of sugar, butter, and commercially canned fruits and vegetables will continue tight. The expected 5 to 10 percent decrease in meat supplies (15 percent for the first quarter of 1945), pork particularly, will give us slightly less iron, thiamine, niacin, and high-quality protein. We shall do all right for energy foods—fats and carbohydrates.

However, family diets vary widely because of regional, income, and individual differences. Despite the fact that the nutrition situation has generally improved and our national per capita average compares favorably with recommended dietary allowances, many persons may eat below this standard for the reasons indicated. To prevent that insofar as possible, still further shifts toward eating more protective foods are recommended.

Meet Dr. Salter

BEING admired by his "information man" is, I suspect, about as difficult for a Bureau Chief as being hero to a valet. Robert M. Salter, Chief of the Bureau of Plant Industry, Soils, and Agricultural Engineering, has no valet, but he does have an information man who admits admiration and says:

"You ought to meet Dr. Salter."

You might think him shy, and he is so modest that you can be sure he never approved this particular item.

Soil and fertilizer specialist, agronomist, educator, administrator—it would take at least all these terms to label him.

Salter started his career as a soils chemist and agronomist at the West Virginia Agricultural Experiment Station. That was in 1917 and he stayed in West Virginia until 1921. Then he went back to his alma mater, Ohio State University, and stayed there until 1940. First he was professor of soils, then from 1929 to 1940 he was chairman of the Department of Agronomy in charge of soils and crops in the university and the experiment station, and finally associate director of the station. During these years he also achieved national eminence (he was president of the American Society of Agronomy in 1936) and began one of his now leading activities—the advancement of coordinated, cooperative research.

In 1940, Salter became Director of the North Carolina Agricultural Experiment Station, and in the following year he

to buying bonds we know a good bond buy when we see one. Only one large, old-line agency ever excels us in our efforts, and that one practically has to, because it originates the drives. We speak, of course, of the Treasury Department.

Our record in the Sixth War Loan drive was no exception—though the field did better than employees in Washington. Whereas USDA-WFA in Washington bought 125.5 percent of its quota, the field brought the average up by subscribing 134.1 percent of its quota. Quotas are a mere fly in the ointment when exceeded by a third.

One pessimistic note: Our goal has been 90 percent participation in pay-roll deductions, and deductions of 10 percent. In reality we have only 86.7 percent participation and we are exceeding our deduction goal by only one-tenth of one percent. *Let's all help sweeten up this single sour note. Now is the best time.*

Stomach stoking, 1945

OUR OVER-ALL supply of food nutrients promises to be as high in 1945 as in 1944, but what does that mean in terms of actual diet? Specialists in our Bureau of Human Nutrition and Home Economics offer us a reply. First, they observe that the quality of the American diet, particularly as to vitamins and minerals, has improved steadily for the past quarter century. The newer knowledge of nutrition has been put into practice.

A phenomenal increase in citrus-fruit consumption since 1920 has added considerable vitamin C to our diet; the upward trend in milk consumption has meant more calcium, riboflavin, and vitamin A. We have also learned to eat more green and yellow vegetables, still further increasing our intake of the last-named vitamin. During the war Victory Garden products have promoted our intake of vitamins A and C.

Meanwhile, white bread has been enriched. That increased our intake of thiamine (nee vitamin B₁) by one-fourth. It likewise augmented our in-

Message from Mr. Hill

THE EMPLOYEES of the Department of Agriculture and the War Food Administration have a right to take pride in the work that they have accomplished in 1944. The ultimate end of their work is the production of food and clothing. The performance of those whose responsibility it is to produce these two prerequisites of civilized existence has been remarkable. Your and my job is and has been to assist those who do the producing.

There has been no actual shortage of either food or clothing, and our armed forces have been well supplied. We can look back over the year 1944 with genuine satisfaction and can be happy in the well-merited praise from a grateful people.

Nineteen hundred and forty-five brings to all of us a challenge and an opportunity to carry on in the same fine spirit and to do even better. It will require more courage, devotion, and ingenuity, as the task will be harder. As the manpower shortage becomes more acute, we will have to close up the gaps and carry on. This, I have every confidence, we will do, as no organization ever had a finer group of people than we have.

There never was a time when it was more important to keep a cool head and our feet on the ground than now. There will be rumors. There will be circumstances that tend to confuse us, but the test of a great people is the ability to carry on and accomplish their task regardless of how tough the going is.

Our gallant fighting men on the front have demonstrated that the American people cannot be stopped by the snow and ice and mud and enemy bullets. They have set a real example for you and me to follow.—GROVER B. HILL, *Under Secretary and First Assistant War Food Administrator.*

Sixth War Loan

USDA-WFA has a settled habit of oversubscribing war loans. When it comes

came to the Department of Agriculture as head of a newly organized Division of Soil and Fertilizer Investigations. Within a year he became chief of the Bureau of Plant Industry, and within another year he was administering the present enlarged Bureau.

You will find Dr. Salter in his office at the Plant Industry Station from before 8 o'clock in the morning, through the lunch hour, until some unknown hour in the afternoon. His car is normally the last one of the day to leave the parking lot, and the knowledge that he goes home at all is based largely on the circumstantial evidence of those few who see him returning to work the next morning.

In brief, Robert M. Salter is a modest man with a background of achievement and honors, a hard worker with kind appreciation for others, an eminent scientist who glories in cooperation. You really ought to meet him.—HOWARD ZAHNISER, PISAE.

Director of Water Utilization

ON NOVEMBER 10, 1944, War Food Administrator Jones designated Ralph R. Will to be Director of Water Utilization. As such he has general supervision over and coordinates the functions and responsibilities of WFA agencies concerned with all aspects of water development, use, and disposal. Mr. Will is not new to agriculture, however.

He was born on a farm near Ottumwa, Iowa, in 1898. His family moved subsequently to irrigated land in New Mexico, where he grew up and assisted in all phases of farm work and management. He was a member of a boys' farm club which predated the 4-H Clubs established under the Smith-Lever Act of 1914. For 2 years he was State champion in corn growing.

In 1921, Mr. Will graduated from the New Mexico College of Agriculture and Mechanic Arts. He almost immediately entered the New Mexico extension service as a county agent and so served until 1934, working with the farmers in a community of diversified agriculture involving both rainfall and irrigation farming. He also had responsibilities in connection with various programs of the Agricultural Adjustment Administration. For a year or so he was assistant State director of agricultural extension work, and in 1936 transferred to the Resettlement Administration, the predecessor of our Farm Security Administration.

While he was at first assistant director for FSA Region 12, he was from 1941 to 1944 Regional Director for Puerto Rico

and the Virgin Islands. The highly successful work in the former was initiated and organized under Will's direction. He served for 3 years as a member of the Puerto Rico Land Authority, which administers the land law designed to secure agricultural lands for sale to landless tenants and farm laborers as family-type farms. The Authority also operates some sugar plantations for the proportional benefit of farm laborers.

Mr. Will was a member of the Puerto Rican USDA War Board and of the Insular Planning Committee, which worked in cooperation with the National Resources Planning Board. Again a career man steps up.

Tips from readers

IF YOU are one of those people who never looks at a book until some other fellow recommends it, here is your reading guide made up from comments sent by field personnel to the Department's Branch Library in Philadelphia:

Practical Guide to Successful Farming, edited by Wallace Moreland. "I really enjoyed this book. I learned a lot, too. Good agronomy background for any new SCS man especially."

Life and Works of C. F. Marbut, published by the Soil Science Society of America. "Gives inspiration to any soil surveyor."

About That Farm You Are Going to Buy (FCA Circular E-29); and Suggestions to Persons Who Plan to Farm or Live in the Country (Cornell Extension Bulletin 652). "These 2 will do more towards better farming than any other 10 I can think of."—MILDRED BENTON, *Acting Librarian*.

Self-discipline

THREE GIRLS were talking about the correspondence they carried on with fellows in the armed forces. Said No. 1: "I never get current on my letters. I just don't have time. I let them pile up a while, then answer one or two and throw the rest away." Said No. 2: "I let mine pile up for about 3 weeks, then I sit down and answer them all at once, or try to. But I often get tired, and the letters still pile up."

Said No. 3: "I pile my letters up too. I put the newest ones on top, but every day I take enough off the bottom and answer them to prevent the pile from growing bigger. That way nobody waits too long for an answer. For I go to school besides working, and I have to have a little fun too. But I get time also

to do all my little personal jobs and 8 hours sleep every night besides."

The other two couldn't understand how No. 3 accomplished all she did. She explained that she organized things. She was methodical. Each day certain things had to be done and were done. Recreation had to be so spaced that it did not interfere with sleep the night before a work day. Personal tasks were performed on schedule. It was a matter not of regimentation but of self-discipline.

You can either let things pile up and never get current or you can manfully perform your small stint every day, sacrificing if need be to do this. If you really do not enjoy always being hurried, harassed, and overwhelmed, with too little time for anything, you will adopt No. 3's method. But those who really like disorder and chaos—however unconsciously—will probably continue distraught.

Direct distribution activities

EVEN DURING wartime there are occasional gluts of certain foods in restricted areas which might go to waste. There are also storms which blow fruit off trees and other emergencies which render continuance of WFA's direct distribution programs necessary to prevent food waste.

During October 1944 a total of 29,457,500 pounds of food was distributed to nonprofit schools, child-care centers, eleemosynary institutions, and welfare assistance cases. That was a gain of 16.7 million pounds over the previous month and of 18.7 over October 1943.

A total of 3,486,562 persons received meals prepared wholly or in part from these commodities. Increased participation in the School Lunch Program accounted for most of the gains over the previous month. There was a smaller increase in the institutional category. It is of interest to know that benefits extended to 1,736 institutions, with a resident population of 716,192 persons, not to mention 12,632 schools and 221 child-care centers.

Fresh apples comprised more than half the total distribution during October. A special purchase program operated in the Northeast to save apples, blown from trees during the September hurricane, which had to be moved into immediate consumption. Other price-support commodities distributed in considerable quantities were dry onions, sweetpotatoes, fresh beets, snap beans, and shell eggs.

Desert editor

THE WORK of a USDA bureau editor sometimes takes him into far-away places. On a recent trip I was exhorted to seek out a Department author (in need of literary assistance) who manages the Forest Service Desert Experimental Range.

To reach him in his remote fastnesses, you must get on a Union Pacific train and be deposited at Milford, Utah, a big town (for Utah) populated in the main by railroad men, straggling Indians, and Mexicans. Leaving Milford in a USDA auto, you ride for about 50 miles, snaking nervously around narrow mountain passes. Not a house or human being meets the eye, except lonely sheep herders on their shivering horses. Here and there bands of sheep browse leisurely, their woolly bodies scarcely visible amid the snow, except for the brown animals (called "markers") gamboling with them.

In the distance, at the mouth of the canyons, you can descry an occasional sheep herder's wagon, those modern covered wagons (hauled by trucks) that are equipped with all the conveniences of life—a full-sized bed with downy mattress, cooking stove, kitchen equipment, lamp, etc. Occasionally some cattle cross the road, driven from the valley into the foothills, where there is more snow for drinking and better forage.

Cold and coyotes

This desert station is perhaps the loneliest outpost of the USDA. It consists of a few dwellings and an office building, all situated on the leeward side of the valley, to temper the bitter winter cold. From the broad windows of the manager's house you can look out over a distance of 20 miles in one direction and 40 in another, a vast expanse of desert "grass" (mostly white sage) rimmed by snow-clad peaks. The entire valley hasn't a single inhabitant, except for a few coyotes, some deer, and interloping wild horses, descendants of those left by the Spaniards in the sixteenth century.

The desert station is a snug and self-sufficient little community. There are a generating plant, a telephone, piped-in water, and other modern conveniences.

The manager leads a quiet but not crude life. Supplies are brought from Milford every couple of days. Occasionally, the manager goes up into the higher country and bags a deer, and a haunch of venison is available for several weeks thereafter. Sometimes a coyote wanders too close to the experiment range and is killed. While I was there, a coyote's pelt was drying in the sun, lending

a piquant, Wild West touch to its surroundings. Later it will become a bedroom rug.

I spent three days at the station. I did not feel isolated—merely detached from the maddening crowd and relieved thereby. The food was ample and wholesome, the conversation mirthful and stimulating. (People who live in lonely places are generally good companions.) The author was very amenable to editorial direction. I left with the feeling that to work for the USDA in such a place was paradise enough.—ANTHONY NETBOY, FS.

Garden decalogue, 1945

THE VICTORY GARDEN theme this year is still, "Grow food to help win the war."

There is also a decalogue, the streamlined ten commandments running about as follows:

- (1) Promote city Victory Gardens for larger supplies of protective foods;
- (2) Make farm Victory Gardens to provide a year-round supply of fresh vegetables for every farm with adequate water supply;
- (3) Make your garden work overtime by planning for both early and late crops and getting two or three harvests per row whenever possible;
- (4) Start home fruit gardens for strawberries, bush fruits, grapes, cherries, stone fruits, apples, pears, and so on;
- (5) Employers encourage employees to make gardens, providing tracts, plowing, or further aid when possible;
- (6) Induce schools wherever possible to have school gardens and to expand gardening instruction;
- (7) Maintain gardens in vacant lots wherever conditions are favorable;
- (8) Encourage garden leaders to keep on with their good work;
- (9) Beautify the home grounds, including more flowers in the garden effort this year;
- (10) Help beautify America, making plans for post-war activities along this line.

Get the idea?

Boost Victory Gardens in 1945!

Writing and speaking

YOU HAVE probably noticed that many people write very interesting letters. A lot of them are advised by their friends to write for publication or to become professional writers. Then when they prepare a manuscript you may have been surprised to discover that it was juvenile, unintelligent, amateurish, or full of dull pedantry. Why is this?

Just as conversation and public speaking differ fundamentally, so do letter writing and writing for publication. It is a very different thing indeed to talk brilliantly to one individual or to a few friends and to address an audience composed of friends, neutrals, and enemies.

It is also a very different thing to write a letter to a single person, whose prejudices, interests, and intellectual qualifications are well known to you, and to prepare an article for a generalized unknown, unseen audience.

That is why a great many people who talk or write intelligently, wittily, informatively, and interestingly, speak stodgily or produce stilted trash when they try to write for publication. Few indeed can bridge these gaps. Many successful authors are poor or indifferent letter writers and execrable conversationalists. Many vivid conversationalists or letter writers produce dull books and articles, or address an audience into somnolence.

If editors could just print your letters, maybe they would make a great book or magazine article. But more likely they would not. For that which is directed at an audience of one rarely pleases many. That is why the best books of letters are composed of epistles the writer really wrote with ultimate publication in book form in mind. It also explains why being a good letter writer or conversationalist does not make you a good author or information specialist.

Bar sinister

A NUMBER of elm trees have been planted throughout the country which are alleged to be descendants of the famous American elm at Cambridge, Mass., under which George Washington is supposed to have accepted command of the Continental Army on July 3, 1775. At the request of National Capital Park officials, William A. Dayton, of the Forest Service, recently inspected several of the elms in the District of Columbia and along the Mount Vernon Boulevard reputed to be descendants of the original Washington elm, all embellished with expensive bronze tablets.

Dayton found that every one of these trees was either an English or a Scotch elm and not the native American elm, and so are not descendants of the historic tree. There is a distinct bar sinister on their escutcheon. At the time the historic Washington elm fell, in 1923, it was estimated to be 204 years old. It would seem that some nurserymen have been making a racket out of distributing plants or seed that are supposed to be from the original elm or its immediate progeny. True descendants of the Washington elm are growing on the campus of the University of Washington at Seattle and the Arnold Arboretum at Jamaica Plain, Mass.—C. E. RANDALL, FS.

To spray or not to spray

MARY LOUISE looked up from the ancient reports she was preparing for the transfer files.

"The Department introduced spraying with bordeaux mixture, the first practical control method for apple scab—whatever that is," she said, impressed.

"It saved the apple industry 10 million dollars a year. Gee gosh!"

"They came to scoff, but remained to spray, those old-time apple growers. They didn't have much faith in white-collar suggestions. But they found out—quickly. On the other hand, I recall an instance where one of our men saved potato growers \$60,000 a year by persuading them *not* to spray."

"Sounds like a man-bites-dog story."

"Sort of," agreed the Old Timer. "He had gone down to Coastal South Carolina to look into the vegetable growing situation and found growers there spending around \$60,000 a year, spraying their potatoes against late blight. There was something wrong with this picture, to his mind. He brought up the matter at a growers' meeting. Late blight of potatoes, he pointed out, is affected by weather conditions—and he had checked up weather and crop reports for the region and found that there had been but three serious outbreaks of late blight in 20 years. In other words, spraying for late blight wasn't necessary as a rule."

"Tossing \$60,000 a year into the ash can!"

"He suggested that they spray only when weather conditions indicated that late blight was likely to be serious. They didn't indicate any such thing for the next 3 years, so the growers pocketed \$180,000."

"Just showed 'em they should use a little common sense," said Mary Louise.

"Why don't people use common sense oftener?" she wondered.

"That's easy," grinned the Old Timer. "It's because it really isn't common."

JOHN A. FERRALL, PISAE.

Brief but important

Is your USDA late? If your copy of *USDA* reaches you a long time after the date of issue you may, if in the field, blame part of the delay upon unavoidable transportation difficulties. But there are also delays in distribution within offices, agencies, and field stations. Persons who get copies in bulk do not always redistribute promptly. You can probably avoid some of that delay by inquiring and by insisting that your copies be sent you as soon as available. *Please do everything you can to help us achieve prompt distribution.* We are fully on schedule with the Government Printing Office and bulk distribution in and from Washington is being handled efficiently.

Gold star books: It has been suggested that USDA-WFA agencies might like to place in the Library books on agricultural or closely related subjects as memorials to workers who lost their lives in the war. Such books could be marked on the cover with a gold star. A special statement could also be pasted below the book plate indicating the donor and the name of the person memorialized. If interested, communicate with Mildred Benton, Acting Librarian.

Science says: Dr. William H. Ross, Bureau of Plant Industry, Soils, and Agricultural Engineering, has been elected president of the Association of Official Agricultural Chemists, and Howard R. Tolley, chief of the Bureau of Agricultural Economics, has been designated American representative on the Interim Food Commission.

It mustn't happen here: An infuriated taxpayer recently wrote a New York paper that, if he called a branch of a certain Federal agency in St. Paul, the customary routine was for him to talk to the switchboard operator, three secretaries of three different officials, and one official without secretary. The routine differed in New York where he talked to four secretaries. Final answers to his questions did not vary: Either they were going to call back with the information, or they didn't know because it wasn't in their drawer, or they had just been transferred, or the information man was out, or there would be a press release tomorrow. Hope we're doing better than that here.

Milkweed-pod collections: Remember the campaign which began some time ago to accelerate milkweed-pod collection? Well, children in various States from Kansas and the Dakotas to Virginia and Maine collected and dried 2½ million pounds of floss, sufficient to make more than a million regulation life jackets. One 13-year-old girl in New York collected and dried 155 bags herself; 4-H Club boys in the Ohio River Valley made from \$8 to \$10 a day collecting the pods at 20 cents a bushel. The total Nation-wide harvest amounted to 600 carloads. That's how one of our campaigns succeeded plenty.

March of technology: January Fortune tells of a new celery-planting machine in California which, operated by 8 girls, waters and plants 12,000 seedlings per hour. Also, in California, a new spinach harvester has been found to save as high as \$300 per hour in mechanically harvesting this crop, which formerly took an army of stoop labor and we do mean stoop. This is as good a time as any to reread *Technology on the Farm*, a special report by an interbureau committee and the Bureau of Agricultural Economics, issued August 1940. BAE probably still has a few copies if you can't find it in the library.

Samuel L. Jodidi: Dr. Jodidi, long an outstanding USDA biochemist, died of a heart attack on the last day of 1944. A polished, soft-spoken gentleman, as well as a distinguished scientist, he was born in Kovo, Russia, studied in Germany, and came to Michigan State College in 1908, filing for citizenship at once. Later in charge of soil research at Iowa State, he entered USDA as an organic chemist in 1913, retiring October 31, 1937. He performed important research on the nitrogen metabolism of plants; he developed a widely used method for determining the exact harvest date of corn and peas, when sugar content was highest; he published many scientific and technical papers. Fortunately such men live forever in their intellectual accomplishments.

Staypak: Forest Service can tell us now about the improved wood, sans resins, called Staypak. For a while, military restrictions prevented us from learning about this new development of the Forest Products Laboratory—a heat-stabilized, high-density product made by compressing either solid wood or many layers of veneer. It is about twice as good as Compreg in tests for toughness and impact strength, and is an outgrowth of wartime metal shortages. For details get report No. 1580 from the U.S. Forest Products Laboratory, Madison, Wis.

Itaconic acid: You will undoubtedly be happy to know that our USDA scientists have at last gotten *Aspergillus terrus* under control. This has enabled them to reduce the cost of itaconic acid (used in plastics) from \$10 to a mere 50 cents a pound. (How's your supply now? Run, don't walk, to the nearest drug store, then don't ask for it.) Strain 1960 of the mold named above has been found 20 percent more efficient than any other for producing the acid from a given quantity of corn sugar. It was produced by irradiating parent strain 265, hence is a mutant. Mold genealogy gets whipped up like crazy when our scientists start into it. Now they are trying to improve other molds by spraying them with ultraviolet rays—particularly those which produce penicillin.

USDA documents: The mimeographed *Condensed History of the United States Department of Agriculture*, No. 4 in our series, has been revised to take account of the WFA reorganization and copies are available for those who want them. Documents on the structure and functions of WFA-USDA are under revision and will soon be available again. No. 3, *Abridged Chronology of Agriculture's Part in the War*, has also been brought up to date. Finally, we have an unnumbered mimeographed article on the achievements of our Department scientists through the years; it might interest some of you.

Soil conservation: Soil Conservation Service announces the formation of 24 State associations of supervisors of soil conservation districts. These recently organized associations bring together farmer leaders of more than 200 districts. By the end of 1944 there were 1,188 soil conservation districts in 45 States, comprising about 658 million acres of land and more than 3 million farms and ranches. Soil conservation is really taking root in the Nation.

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USDA

FOR FEBRUARY 19, 1945

From Judge Jones

I WONDER IF I can have a corner of this issue of *USDA* to say something that I have already said, often and emphatically, to those to whom I can talk personally, but which I'd like to say to everyone in USDA and WFA. That is that I have been greatly impressed by the excellent spirit of teamwork that exists throughout this whole great organization. This is one of the most critical periods in our history, and to be able to say, as I can say after 18 months of being on the team myself, that I have seen only mutual confidence and a united effort, with all working together in this war job, is as fine a compliment as can be paid to any organization.—MARVIN JONES, *War Food Administrator*.

Life begins at forty

THIS YEAR marks the fortieth anniversary of the establishment of the Forest Service.

Hatched from USDA's old Bureau of Forestry, and with the forest reserves transferred from the General Land Office as a new scratching ground, FS began to flap its wings on February 1, 1905. After four decades of accomplishment, it is justified in doing a little crowing. The forest reserves, now known as national forests, have been developed into an outstanding public forest system. FS research has established basic principles for American forestry and range management (scientific forestry was almost unknown in the U. S. 40 years ago). The word "conservation," which FS introduced in its application to natural resources, has been brought out of the dictionary into the American vocabulary.

Back in 1905, the dingy old Atlantic Building on F Street, in Washington, which was FS headquarters for 30 years, hummed night and day as its conservation crusade was launched. Some of the men who became national leaders in forestry were student assistants at \$25 a month in those days. Out in the field young rangers were helping to settle bitter range wars between cattlemen and

sheepmen, routing timber trespassers, fighting raging fires with hand shovels, and selling the idea of conservative and wise use of our resources.

Conservation as an ideal is now generally accepted. But conservation in our forests is still far from universal practice. At a "family meeting" of FS folks celebrating their fortieth anniversary, Chief Forester Lyle Watts suggested that "life begins at forty." FS's second crusade, aimed at bringing good forestry practice to all U. S. forest lands, is now under way.

FS's first two chiefs were on hand at the fortieth anniversary celebration. Gifford Pinchot, Chief Forester from the time FS was established in 1905 until 1910, and later Governor of Pennsylvania, was back at a desk in FS, writing a history of forest conservation. Col. Henry S. Graves, Chief Forester from 1910 to 1920, and later Dean of the Yale School of Forestry, also was back in Washington, as chairman of the Subcommittee on Forestry and Forest Products of the United Nations Interim Commission on Food and Agriculture.—C. E. RANDALL, FS.

Chief Forester

LYLE F. WATTS became Chief Forester in January 1943. He took on what the late Teddy Roosevelt had called a job of "sacred trust." His preparation for that trust was 30 years of wide and varied forest experience. As a field assistant and forest examiner in Wyoming and Idaho, he had cleared trails, saddled horses, surveyed timber, planted trees, scaled logs for timber sales. He had served as deputy supervisor and supervisor on three national forests in Idaho, and as assistant chief of forest management at the Intermountain regional office.

Watts started his forestry work at the bottom—in the Missouri River bottoms, to be exact. As a student assistant back in the summer of 1912 he estimated cottonwood timber along the east bank of the Missouri. He also did fire patrol in Minnesota and timber reconnaissance in the Rockies before he graduated from

Iowa State College and entered the Forest Service.

Born in Cerro Gordo County, Iowa, he moved to Bellingham, Wash., with his parents as a youngster, and was brought up in the big timber country of the Northwest. He returned to his native State to enter forestry school and received his B. S. in 1913. He entered FS as a regular field assistant that same year. Iowa State College tacked on a Master of Forestry degree in 1928.

During a brief absence from FS, Watts organized the School of Forestry at Utah Agricultural College. Returning, he directed range and stream flow studies at the Intermountain Forest Experiment Station in Utah, and, in 1931, was named director of the Northern Rocky Mountain Forest and Range Experiment Station at Missoula, Mont. In 1936 he became regional forester for the North Central States, with headquarters at Milwaukee, Wis., and, in 1939, was transferred to Portland, Oreg., as regional forester for the Pacific Northwest.

No desk pounder

The pioneer Chief Forester, Gifford Pinchot, gave the conservation movement in America its first real impetus. The present Chief has the job of translating that movement into a practical, working program. In spite of all that has been accomplished, our forest situation is far from healthy. The trend of forest deterioration has yet to be reversed. Forest depletion already has gone so far, Mr. Watts is convinced, that we are going to face a period of wood shortage before adequate new supplies of timber can be grown. If we are to meet prospective long-range requirements for timber, he says, our present annual rate of timber growth will have to be doubled.

Lyle Watts is not the loud, desk-pounding type of executive. At a conference he is apt to talk less than others in the group. But when he does talk, it is usually right to the point. He is tall, straight and slender, blue-eyed, informal, and friendly. He has the long, easy stride of a man of the woods. He thinks of forests, however, in terms of human welfare. At a family meeting of FS employees soon after he became their Chief, Lyle Watts told his co-workers:

"I know what happens to people in forest communities after their timber has been liquidated improperly or too fast. We all know that forest land resources can help bring reasonable security to people who want to own homes and raise families. And I will do all that I can to help you make sure that these resources are so managed that they will do just that."—C. E. RANDALL, FS.

In Phillie

THOUGH quite a herd of USDA-WFA employees is indigenous to Philadelphia, they feel isolated and get scant attention from Washington—or so they think. They imagine going to Phillie doesn't constitute much of a field trip and mutter in their beards about our neglect. Well, while bent on other duties, your editor raced about among them the other day—all except the Eastern Regional Research Laboratory which we had visited earlier (see *USDA* July 10, 1944).

We renewed our acquaintance at the Forest Service's strictly urban lumberyard. Frank A. Connolly is now president of the PHILUSDA Club that we addressed that evening in an FS conference room, and a very effective one he makes. We again saw Hardy L. Shirley, now director of FS's Northeastern Forest Experiment Station (see *USDA*, April 1, 1944), and Miss Sarah W. Parker (*USDA* March 18, 1944), our capable branch librarian in the same building.

We likewise called on Regional Attorney Leonard O. Carson and his assistant, Mr. Diamond, Office of the Solicitor. Their best client is Farm Security Administration, by long odds, but they had just done a bang-up job, for the Office of Marketing Services, of stopping a tobacco-buying practice which violated a War Food Order. Their effective sleuthing and their hectic, long-hour weekend of processing papers and getting an injunction fixed up and duly served formed quite a story in itself.

We next dropped in on County Agent C. K. Hallowell, just returned from a meeting in Harrisburg. He is another of Extension Service's capable, busy farm men who operate from city office buildings.

The next morning we invaded Upper Darby, talking first to W. S. Middaugh, regional agricultural analyst for the Bureau of Agricultural Economics, and then to Dr. William W. Reitz, acting chief of the Soil Conservation Service's Regional Division of Information. Later we met Dr. A. L. Patrick, regional conservator, and said hello to the conference of State conservators then lining up policies for the region.

Afterward we discovered the far from garish reformed garage—the type of thing for which Farm Security appears to have a positive passion—where FSA's regional staff labored under an emphatic whisky sign. Here we met John F. McDonald, regional information specialist, James H. Wood, regional FSA director, and Elmo Newman, the personnel officer. They insisted we come back and investigate the region closely since they feel

mere Washingtonians know too little about its widespread activities.

Finally we went downtown and looked in on the Office of Labor, meeting L. B. Barrett, Assistant Chief of Operations, and finding, to our satisfaction, that *USDA* was well read here as elsewhere. OL's quarters were taken over from a buttonhole-making sweatshop of earlier days—and looked the part.

Everywhere we found employees industrious, active, loyal in pursuit of public business. They were all hospitable, all glad to see a visitor from Washington. As we learned of their myriad activities we began to feel quite proud of them. Visit Philadelphia sometime. These isolated hermits would be glad to see you.

Transportation

THE POLICY of WFA-USDA on transportation is exceedingly broad in that we are concerned with all phases of transportation relating to the production and distribution of food.

One function is to protect producers of agricultural products by seeing that freight rates are not inimical to their interests; by supporting actions tending to correct unjust rates, and, if need be, initiate such actions; by presenting the farmers' needs for tires and trucks to the proper agencies so that quotas are allocated for their use.

Another function is to support all programs for the conservation of transportation equipment. Within our own organization every effort is made to see that cars are loaded and unloaded promptly, that special types of equipment are not used except where absolutely necessary, and that the physical distribution of farm products is as efficient as possible.

These activities are implemented by cooperation with farm organizations, industry, advisory committees, the Office of Defense Transportation, and the Association of American Railroads.

The WFA Office of Transportation maintains a close and friendly relationship with other Government agencies interested in transportation. Representatives of the War Shipping Administration, WPB, and ODT frequently hold informal meetings with OT personnel at which transportation problems are discussed. They also appear at formal committee meetings so that WFA's position is made clear and they are kept informed as to shipping problems and programs. The Office acts as a clearing house for other transportation agencies of WFA so that actions initiated by one agency are not duplicated by another. It also acts as liaison between Department agencies and other Government groups.

"I was blind * * *

FORT WORTH, December 23. " * * * I was blind for a month; now after 2 months I am able to see well enough to write this letter to you."

These lines, in the smooth, even handwriting of a former Soil Conservation Service draftsman who, on March 5, 1943, put aside his drawing pen, T-square, and triangles to take up a gun, are from a letter received by Regional Conservator Louis P. Merrill from T/Sgt. C. M. Dalmeida, formerly of SCS in Fort Worth, Tex.

The letter is not a story of hardships. Nor does it carry a single note of defeat. Written by a wounded veteran of battles in France and Belgium from a hospital in England, it expresses a spirit of hope and courage. Dalmeida came up the hard way, first as an enrollee in the Civilian Conservation Corps camp under SCS at Seguin, Tex., and later as an apprentice draftsman in the Fort Worth regional office where his work earned him rapid promotions.

"Learning about some of our boys who have made the supreme sacrifice makes us feel even more than we do the importance of the cause we are fighting for and why we should strike with every ounce of strength we have to bring this war to a rapid end. We shall prove to their souls that they did not die in vain," Dalmeida's letter to Merrill reads.

"What SCS has done in the past and also during wartime," the former draftsman says, "has been a great achievement towards the welfare of the country, and I know that they shall continue doing splendid work during the coming years and also prove to be one of the most important branches in the improvement of the greatest country on earth and its neighboring countries.

"We are also very proud of the way those who are still at home carrying the burden of production that comes up during wartime are doing their part in war bond drives and blood donations. The latter I know from experience has saved many wonderful fellows who would have made the supreme sacrifice had there not been the donations which were given voluntarily by our loved ones at home.

"Medical science in war is wonderful; it's doing things which are almost impossible, but their patience and devotion are saving many of the American and Allied boys' lives."

Prior to going overseas Dalmeida received military training at the Ordnance Unit Training Center at Texarkana, Tex., and also at Camp Claiborne, La. He is the son of Mrs. Mary M. Dalmeida, of San Antonio.—PHOEBE FARIS, SCS.

REA progress

THE Rural Electrification Administration reports progress during the past fiscal year, at the end of which it was providing service to 1,152,013 consumers, an increase of 110,210 over the previous year.

All power lines constructed by REA systems were undertaken in accordance with WPB regulations. The great majority of those connected were on farms qualified for service under Government regulations. The service enabled them to use electrical equipment to produce greater quantities of foods needed and to alleviate farm-labor shortages.

REA's debt-service record remains excellent. By the end of the fiscal year 1944, actual payments of \$74,970,319 had been made on \$58,482,400 which had fallen due as principal and interest. *Of the sum paid, \$16,807,254 had been paid in advance of due dates.* Moreover, REA assisted certain borrowers to make aggregate savings of \$150,000 in their purchases of power at wholesale; this was done by negotiation of better contracts.

Turkey

CONTRARY TO much current opinion, the turkey is not a myth. Now that you didn't have any of the famous bird for Christmas (or did you?), let's discuss the streamlined small-type turkey especially developed for apartment dwellers who would have to work from outside the kitchen if they ever got a big turkey inside it.

Scientists at Beltsville Research Center began work about 1934 on producing a turkey suitable for small ovens and small families. The result was the Beltsville Small White. Young toms weigh 12 to 17 pounds and young hens $7\frac{1}{2}$ to 10, ready for market. These live weights are but two-thirds those of normal-size turkeys.

The normal-size birds were found resistant to dwarfing. Going down in the world was not their idea of progress. But genetics finally conquered. The type—with compact body, moderately long keel bone, and abundant meat—became fixed. Legs and neck are shorter in proportion to body size than for normal birds. There is also more light meat—and more dark!

Gallup has not yet polled the turkeys for their reaction to these goings on, but market prices are 1 to 5 cents per pound in their favor, if that's any consolation. Their white pinfeathers show less than the dark pinfeathers of normal birds,

too. Their egg production is good and they breed well.

We owe this reconstruction of America's famous bird to S. J. Marsden, M. A. Jull, T. C. Byerly, and C. W. Knox. The estimated cost of the achievement was about \$20,000. As the stock becomes more widely distributed, the estimated value to turkey producers will be \$50,000 or more—*each and every year*. New business will result in addition because this bird is available, and consumers are satisfied, too, when they can purchase a true turkey that bears less resemblance to an ostrich than usual.

Job and * * * jobs

CERTAIN JOBS—you may or may not hold one—make more demands of the worker than do others. They may be jobs, too, not positions! For they all do not involve high supervisory or administrative status by any means. Some seemingly quite lowly jobs are of the utmost importance because the worker's absence throws an entire finely sensitized mechanism out of gear.

Such workers have usually learned the intricacies of certain methods or procedures, and their job is somehow the notched wheel which must mesh into the delicately balanced machinery if it is to run properly. These jobs should be held only by people who have good health and dependable habits. For they entail not only responsibility, but the faculty of getting to work regularly, day after day, with only carefully planned absences.

In many cases it doesn't matter so much if the worker feels that he or she (is it more often "she"?) just can't get to work today. It doesn't matter so terribly if the worker enjoys a few late nights, eats poorly, is careless about clothing, exposure to the damp and cold, or about getting sleep and developing nervous tension. They can indulge such things.

But those who hold the jobs or positions (some of them *are* positions, too) mentioned above owe more than that to their work. They must take unusual care of their health, avoid late nights, eat well-balanced diets, eschew overexhaustion, and resist giving in to lazy whims—not only for their own sakes, but for the sake of their work. It is difficult to find employees capable of the fortitude, determination, and loyalty these jobs require.

If you have such a job, take stock of yourself. Are you doing it justice? Does it irk you to do it justice? If so, you better transfer to easier and less exacting work.

Post-war planners

WHILE THE END of the war no longer seems just around the corner, and our incurable optimism has suffered a relapse, post-war planning can scarcely begin too soon. A good job of it takes time and will be all the better done if not rushed. Two recent publications may be of special interest to post-war planners.

One is the printed booklet, *Postwar Agricultural Policy*, issued by the Association of Land-Grant Colleges and Universities, October, 1944. This is the Report of the Committee on Postwar Agricultural Policy of the Association, of which Noble Clark is chairman. He is associate director of the Wisconsin Agricultural Experiment Station at Madison, and you can perhaps get a copy of the report from him if you do not find one in your library.

The report discusses: Agriculture and National Welfare; Adjustments in Agricultural Production; Agricultural Prices; Land Tenure; Conservation of Land, Water, and Forests; Rural Living and Social Facilities; and Role of Farm People in Policy Making.

Secondly, your attention is called to the impressive and informative *North-east Agricultural Atlas*, an admirable regional report produced by USDA's North-east Post-War Planning Committee, of which W. S. Middaugh, Bureau of Agricultural Economics, 217 Center Bldg., Upper Darby, Pa., is chairman. Sixteen to seventeen hundred copies of this popular processed publication have already been distributed, usually on requests for single copies. Many requests are now coming in from business and industrial sources.

The Northeast Region contains 6 percent of our total land area and 29 percent of our people. Its 2.7 million farm people operate 5 percent of the Nation's farm acreage, but produce 12 percent of the farm products in terms of value. The States in the region are Maryland, Delaware, Pennsylvania, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, and Maine. The following topics as they relate to this region are discussed:

Physiography; agricultural, forest, mineral, power, and industrial resources; health, medicine, and nutrition; population and employment; housing and facilities; transportation, marketing, and processing; income and prices; inter-regional competition; problem areas; agencies and organizations.

City farmers

THE PRESS announced that 74 farmers in the metropolitan area of New York City, who had received occupational deferments, will be called up for pre-induction examination. The announcement followed a request by the Director of War Mobilization that the draft status of all men in this category be again reviewed.

Farmers in New York City? Yes. While the city's selective service director remarks that the half dozen dairy farms within the metropolitan area are little more than "milk factories where the cows never see the blue sky nor the green grass," a number of these farm hands do work on truck farms on Staten Island. Which brings to mind two things that city people forget about farming.

One is that so much farming is now done in cities. The big city dairies are truly part and parcel of farm work. A great deal of our farm work today is performed in cities. Huge feed, fertilizer, and farming-equipment industries are in reality an inseparable part of the agricultural industry. In every city and large town there are State and Federal chemists, veterinarians, bacteriologists, horticulturalists, entomologists, and others who pursue farm work, protecting plants and animals from disease, inspecting, analyzing, testing, performing research.

One farm trend of this modern age is the tendency for much of farming to move to the city. Even the feed merchant and, above all, the commission merchants and brokers who handle farm commodities they may never see, are also engaged in agriculture. Which brings us to our other point. The grain broker, for instance, is often charged with being far removed from the actual physical procedures of farming. He works merely with figures in books not, like the fellow on the land, with actual soil, animals, and plants. But how close to reality is the farmer's work to him these days?

Farmer businessman

An English writer, Henry Williamson, adverts to this point in *Atlantic Monthly* for January. He remarks how his London friends see his life as a farmer in terms of cows grazing in lush meadows and of green corn springing up from arable fields—the wind on the heath and the sun shining over the hill. Then he goes on amusingly and revealingly:

That is the background, certainly; but it is often no more real to the farmer than the back cloth of a stage play is to the players. The countryside is there, but the farmer seldom sees it plain or clear.

His grazing cows are to him, by necessity, milk yields involving the filling in of forms for the Milk Marketing Board. His seed corn requires more forms; so do his fertilizers and the yield of his harvest. His tractors require further forms for petrol; so does his car. His men are man-hours, each with its separate income-tax calculation. The barbed wire that keeps his cows from the cornfields means an extra form to be filled in; so does the wood to repair his gate, and coal for threshing. Several sets of certificates are required for the purchase of new implements. Nothing moves in or on British land without many written words and orders preceding action.

In this, the farmer is like any other businessman serving the Government and the community. And how he dreads all those details, which are as verbal weeds choking his very life.

Practical men

RESEARCH SCIENTISTS are not only the greatest realists we have, but also the most practical men. Suppose a committee had been called together in the seventeenth century to consider better means of transport. They might have discussed the breeding of horses, the improvement of vehicles, or the maintenance of good highways.

If anyone had said, "Concern yourselves with the effect of acidulated water on couples made of various metals," he would have been regarded as a fool. Yet he would have been right. For the electric current wrought the greatest revolution in transportation. In his *Science and Methods* (the volume on *Foundations of Science*) Henri Poincaré wrote:

One need only open the eyes to see that the conquests of industry which have enriched so many practical men would never have seen the light if these practical men alone had existed, and if they had not been preceded by unselfish devotees who died poor, who never thought of utility, and yet had a guide far other than caprice. As Mach says, these devotees have spared their successors the trouble of thinking. (P. 363.)

Just as mechanics produces economy of effort, the role of science is to produce economy of thought. The importance of every scientific fact may be measured by its yield, by the amount of thought it permits us to spare. "Essentially new discoveries proceed in the long run from fundamental research conceived in intellectual terms," as Prof. Frank R. Lillie once put it. Social use and exploitation are bound to appear.

Cost accounting

Any fundamental discovery—parthenogenesis in sea urchins, the relation of chromosomes to heredity in the fruitfly, embryonic organizers in salamanders, the hydrogen-ion concentration of slime molds, the characteristics of frog's eggs, the colloidal properties of protoplasm, the permeability of cell membranes, the independent life of cells in tissue cul-

tures, the balance of salts required by marine organisms or a frog's heart, the electrical properties of the squib or the eel—each finds its rightful place in practice. Each causes repercussions throughout the realm of science.

That is why research is a natural resource. That is why some universities spend as much as a quarter of their income on pure science. That is why some industrial concerns spend 4 or 5 percent of their gross income on research and why, in pre-war 1938, the Federal Government so expended something like 2 percent of the total budget. What does this mean in round figures?

In 1938 somewhat over a cent out of each dollar grossed by our manufacturing industry and our agriculture was being spent for research. Industry spent 1.7 percent of its gross income on research, agriculture only 0.37 percent of its—the latter on research carried on almost wholly by State and Federal institutions. The total cost for both industrial and agricultural research was less than \$2 per person in the United States in 1938. Was that too much? Was it enough? Will it be regarded as adequate in post-war days?

More on dictation

K. D. VAN WAGENEN, county agent for Platte County, Wheatland, Wyo., comments as follows on *USDA's* article, *Dictation*, November 27 issue:

After contending with the problem of dictation in a county office, I have come to the conclusion that, unless you have a steno who is really good at it, you gain time by dispensing with dictation altogether. Eighteen years ago when I started in as a county agent, no funds were supplied me for any office assistance, and this was in a county with some \$50,000,000 taxable value. So I got a typewriter and learned to do my own letters. I kept this up for some time, even when, later on, I did have funds for office assistance.

Of recent years, with more liberal funds for clerical help, I have run the gamut of girls just out of high school seeking experience through married women reviving their youth, to real good, first-class stenographers who can take down as fast as you can talk and then compose a letter with good grammar and rhetoric and correct spelling that says what you want to say. That is the only kind of stenographer who is worth having around.

For, if you have to dictate slowly, then correct for sentence construction, spelling, and spacing on a sheet, and so forth, and have it done over again, you are just killing time. Same with "roughing it out in pencil." My recommendation to those who have to "rough it out" is to get themselves a typewriter and do the job from the ground up. It is quicker. I still type with the 2-finger "P and P" method and can make a better letter in less time than a second-class stenographer can.

However, I still wish for the gal I once had, who could take down enough material at one sitting to make three pages of single-space elite type, and come up with a perfect job of typing, spelling, paragraphing, just as good as I would do myself (?).

Calamity Janes

THERE ARE people to whom accidents happen. Possibly some of them work for or with you. Their lives are episodic studies in disastrous calamities. They live in a perpetual state of emergency.

Nearly every day curious accidents occur to delay them in getting to work or to prevent them from coming at all. They lose their door keys, break their glasses, fall under streetcars, have visitations from unexpected or deathly sick relatives, have to stay home or go to Chicago on family affairs. Varied circumstances accumulate to pester them, absorb their time, or prevent them from doing what they say they want to do. If nothing else, they get ill themselves.

These people are typical characters. Disorder and "bad luck" pursue them all their lives. Their situation never clarifies and becomes normal. This is in the main because they passively let things happen to them rather than exercising foresight and taking preventive measures to see that they do not happen. Such people are too easily deflected from the path of duty in part, at least, because they want to be.

Organization and planning should not be limited to institutions. Our personal lives can be so planned and organized that we avoid emergencies, prevent accidents from happening, and perform our duties conscientiously, regularly, dependably.

Extension institute

EXTENSION SERVICE held its thirtieth annual conference January 4 to 6. The general themes discussed were: (1) Educational aspects of plans and policies of national farm, labor, business, welfare, and religious organizations, in connection with winning the war and the post-war period; (2) post-war educational plans, problems, and programs. Representatives of agriculture, labor, industry, business, education, and religious bodies spoke and discussed these themes at length.

This was but one of many such meetings and discussions which must be held before definite conclusions can be drawn. We cannot begin too early on this. All speakers stressed the interdependence of the different agencies represented. All agreed that education was paramount. But the details of how citizens shall be equipped to deal with the totally new post-war situation—for no one thought for a moment that we could go back to any previous point or status—remain unsettled.

Education itself proves to be well institutionalized, yet we need agencies which can take responsibility for dealing with broad problems in the very broadest way and with the least possible compartmentalization and segmentation. Can educators produce a consensus of knowledge and methods with which to win the peace? Can education be used to effect desirable social changes? The urgency of the problems facing us is apparent, but many retroactive vested interests must be placated.

Education is a living process, a leading out. It cannot safely be accelerated by hothouse methods. Many institutes and conferences of this sort, with the freest possible discussion, must be held to evolve educational methods which will offer a way out of our difficulties and lead to a durable peace.

World food production

THE WORLD'S total food production has increased since the outbreak of the war. There are more calories in the over-all farm output. But the world's population has nevertheless increased faster than its food production.

North American farm food production increased 30 percent, if the average output of the years 1942 and 1943 is compared with the pre-war output. The increase has been 17 percent for South America. The increase has been slight in eastern Asia, Oceania, and South Africa, and there has been a 5 percent decline in western Europe, North Africa, and the Middle East, with a still greater decline in parts of the Soviet Union and China, and in the Dutch East Indies.

A study of 30 countries having 60 percent of the world's population, and of the production in all countries of 5 leading food crops which provide half the world's calorie supply, gave the results noted above. In places which normally produce less food than they consume, food crops have been emphasized more than fodder crops and livestock. In surplus-producing regions there was strong emphasis on livestock but considerable increase in the output of all foods.

The 1944 harvest in continental Europe (Russia excluded) was apparently poorer than the subnormal harvest of 1943. Milk production is 15 to 20 percent below pre-war, meat production a fourth below pre-war. Further declines in total farm food production will mean less food for direct consumption by Europeans. Many have been subsisting there on less than 2,000 calories a day. The food situation in Russia also is tight.

Markedly increased food production in

many countries under wartime conditions bodes well for the future, however. When farmers regain full equipment, fertilizer supplies, and labor, they can do wonders. Total world food production could easily become greater than ever in pre-war time. Now, will it be? That's what we all want to know.

Hoboken inspection house

RECENTLY we again met G. G. Becker, entomologist in charge of the foreign plant quarantine inspection performed at the Hoboken (N. J.) inspection house. Becker is also in charge of the Permit Section, Division of Foreign Plant Quarantines, Bureau of Entomology and Plant Quarantine. You might assume, what with the war and all, there would be little to do up there, but the curious plants our far flung warriors send back—the origins of which can seldom be determined—and many other jobs keep the staff busy.

This is quite an inspection house, too. It was occupied June 28, 1940, and cost \$400,000 from a Public Works Administration allotment. It is 144 by 52½ feet, 4 stories and basement, constructed in the main of reinforced concrete. The first floor comprises shipping and receiving rooms, 2 cold-storage rooms with approximately 550 square feet of floor space, a vacuum fumigation tube of 1,000 cubic feet capacity, with garage, and other service equipment.

The inspection and treating rooms are on the second floor, which contains one fumigation room 30 by 32 feet equipped with 5 steam-jacketed vacuum fumigation tubes and 4 atmospheric fumigation chambers. There are also hot-water-treatment rooms, autoclaves, a steam drier, and 2 large chambers for moist-heat treatment. The large inspection room is air-conditioned. The third floor contains offices and laboratories, including photographic facilities. The fourth floor is equipped for insect parasite work and is assigned to the Division of Foreign Parasite Introduction.

This businesslike structure in Hoboken has replaced the old inspection house some may remember at what is now Twelfth St. and Constitution Ave. in Washington. You may also remember the cobblestones on Twelfth Street and the shipments of plants "stored" on the sidewalk. Possibly you tripped over some of them. Here 80 to 85 percent of all special-permit importations were inspected some years ago, peak volume having been reached the fiscal year ended June 30, 1927, when 46,625,648 plants, bulbs, etc., were imported. Big business, eh?

Bamboo

ACCORDING TO Dr. F. A. McClure, consultant of the Office of Foreign Agricultural Relations, bamboo is invading the Americas, greatly to the advantage of the Western Hemisphere. Pretty soon we shall be using this giant treelike grass in ways strange to the esoteric oriental, too. Probably we shall never depend upon bamboo as abjectly as many in the Orient have had to do, but it can lend comfort and even luxury to our lives in many ways.

Paper can be made from bamboo, and tests are already under way on producing rayon from it. In Latin America bamboo is now being used in construction, packing, and stiffening crates and boxes for ocean shipment. Western technological ingenuity has produced composite bamboo construction and the impregnation of bamboo with plastics of the bakelite type.

This plastic treatment stiffens bamboo as it does wood. It reduces water absorption and renders the material highly resistant to attack by insects. The treated bamboo takes a beautiful finish. When we meet bamboo in our own everyday life, we shall not be imitative of the orientals. Instead, the fabrications we encounter will be a combination of occidental techniques and western technological skill.

M. L. of Extension

HE'S A COUNTRY boy, from Cass county, Iowa. He votes in Montana. He's as much at home before the mike, speaking to a Metropolitan Opera audience of millions, as he is at a farmer's picnic. Rural neighborhood meetings still are to him the most logical setting for the best working of democracy. He's been one of USDA's top idea men for a decade; a dynamo for getting things started. Yes, we're talking about M. L. Wilson of Extension, thinker and doer, and a good judge or foreseer of things to come.

M. L. Wilson is a product of the pre-automobile age. When he was a boy, Sunday was a day for services and for visiting neighbors. His home community of Bear Grove had three churches within walking range of the Wilson home. The Wilsons attended each. After morning services in one church, farmers would gather somewhere for dinner and enjoy a social hour before going to afternoon services.

At one of these social hours at the Wilson home the youngest Wilson boy, Milburn Lincoln, announced he was go-

ing to college to study farming. Even the church-going friends of the Wilsons laughed at that. Remember, "book-farming" in those days was still a joke among real dirt-farming folks. But M. L.'s Sunday-school teacher, Jennie Cork, saved the day. M. L. went to Iowa State College at Ames. Today, all the land-grant colleges can be grateful to Jennie Cork for defending the ambition of her Sunday-school pupil.

After finishing his agricultural course at Ames, young Wilson first settled in Nebraska as tenant. Later he homesteaded in Montana. By 1914 he was county agent of Custer county, serving an area as large as the State of Massachusetts. Most of the settlers had to learn western agriculture from scratch, and M. L. taught them from practical experience.

After serving successfully as a county agent through the trying days of the first World War, Wilson went as graduate student to the University of Wisconsin. There he used to hear Prof. Richard T. Ely repeat what Ely had heard Prof. Woodrow Wilson say at Johns Hopkins: "In modern society mankind can no longer afford the jolts of war because they result in such great economic and financial upsets as to pave the way for further war."

Thinker and doer

His studies at Wisconsin increased Wilson's faith in Woodrow Wilson's idea of international cooperation. M. L. returned to Montana and remained until 1924, when he became head of the Division of Farm Management and Costs in USDA. In 1926 he returned to Montana State College as head of the agricultural economics department. In 1929 he studied the economics of wheat in Canada and Europe and went to Russia. There he served as technical adviser in setting up tractor stations for large wheat-farming units in the North Caucasus, following which he returned to his post at Montana State College.

In and out of USDA, agricultural leaders today recall a paper by M. L. Wilson, read before a farm economics conference in February 1933. It outlined what later became AAA, FSA, and paved the way for many long-due agricultural reforms now accepted without controversy. In addition the paper warned of the consequences if our people shied away from the road of international cooperation. This foresight was not guesswork but was based on a sound understanding of economics and history.

M. L. Wilson's leadership extends far beyond the field of agriculture. He

brought together many loose ends in a national nutrition educational program, for defense, and later war. (For Wilson is also Chief of Marketing Services' Nutrition Programs Branch.) In fields of higher education he has shown active leadership. He believes that higher education means little unless it is used for great intellectual and ethical development in post-college years. He has read several papers before the American Philosophical Society.

Cultural anthropology and the social sciences are to him as important in the advance of civilization as are the physical sciences. He spends much of his time in the field, meeting with State directors of extension, college educators, food and nutrition leaders, scientists, and farm people. In spite of all his official travels and activities in 1944, he had one of the finest Victory Gardens in Chevy Chase, Md. At the October USDA garden show, where all vegetables and fruits had to be grown by the exhibitors, M. L. Wilson's pumpkin won first prize.—WERNER MEYER, Ext.

Ten ways to annoy your stenographer:

(1) NEVER READ the incoming letter or plan your reply until the stenographer arrives. This gives her time to adjust her hairdo, to write amusing things about you in her little book, or even to think about broad economic problems such as the manpower shortage.

(2) Do not spell out technical terms or unfamiliar proper names, particularly in dictating to a new stenographer. To do so makes her job too simple, and when the work no longer challenges her she may lose interest and may even transfer to a war agency at a lower grade.

(3) If you ordinarily speak distinctly, do your best to overcome this handicap. The simplest techniques, requiring no equipment, are to hold your hand over your mouth when speaking or merely to face away from your stenographer. If these techniques do not work, place a cigarette or pipe in your mouth. Nonsmokers may use a pencil or gum. In any event, be sure to slur over connecting words like prepositions and conjunctions.

(4) Lower your voice and pause at any point except the end of sentences and paragraphs. Otherwise the stenographer will have no opportunity to earn a plus on Element 18, "Resourcefulness," in her next efficiency rating.

(5) Write out long memoranda and reports in longhand and then read them to the stenographer as rapidly as possible. She may not get much of it during the first year or two, but do not become discouraged. Only by such discipline and speed practice can she eventually qualify as a court reporter.

(6) Make minor corrections in ink or at least with heavy pencil so that the entire page must be retyped. Since many of our typists are inexperienced, they need this additional practice.

(7) Make it clear that she is not to make or suggest changes in letters, but be sure to hold her strictly accountable for incorrect English usage or involved sentence structure.

(8) Never ask for extra copies until after the memorandum is typed; otherwise all copies can be made in one run.

(9) Though experts differ regarding the best time of day for dictating, many find

the late afternoon the most effective for breaking up car pools and interfering with domestic duties.

(10) Never give the stenographer the subject of a memorandum. The practice of assigning accurate subjects makes life too easy for classifiers and searchers in the files unit and leads to shiftlessness. It may even enable them to find the memorandum later.

(P. 44, Supplement, Writing for the Social Security Board, reproduced by permission.)

Bald bees

YOU PROBABLY didn't know that some bees lose their hair, but we feel that the facts should no longer be denied you. When bees start growing bald, bee growers have in the past been inclined to diagnose paralysis. Often a heavy death rate results, affecting entire colonies. But partial hairlessness and black and shiny appearance, regarded by most bee experts as sure signs of paralysis, occur less frequently than other signs.

Dr. C. E. Burnside, of the Bureau of Entomology and Plant Quarantine, calls attention to these facts. He has also discovered that at least one type of honey-bee paralysis is caused by a filtrable virus. Bees often lose their hair for a very human reason; other members of the race pull it out, the healthy ones usually picking on the sick ones. Yet lack of hairlessness is not a sure sign paralysis does not exist.

Discovery that a virus causes paralysis disease of adult bees is the first step toward finding a preventive or cure. More accurate knowledge of symptoms and signs of the disease will enable beekeepers to judge more accurately when infected colonies should be requeened. Trembling and sprawled legs and wings are surer signs to go by than hairlessness.

Sweet corn nibblers

"SWEET CORN—especially on the cob—is doubtless the most thoroughly and distinctive American vegetable," declares Dr. V. R. Boswell, Bureau of Plant Industry, Soils, and Agricultural Engineering, in charge of vegetable crop investigations. He adds that sweet corn has proved widely adaptable and that desirable varieties have been bred in North Dakota and Canada for planting north of the region where field corn is a profitable crop for feed. However, many Europeans who know anything at all about corn still consider it fit only for stock feed. (Don't laugh—many of us still regard soybeans as a forage crop!)

Some years ago an intrepid English farmer grew an acre or so of sweet corn and got himself written up in the newspapers there. "Corn is a favorite food

in America," one paper told its amazed readers. "It is regarded as a great delicacy. The ear is boiled for 15 minutes and served like a potato in its jacket. The leaves are removed, butter is spread over the corn, and it is sprinkled with pepper and salt. Then, holding the ear at the ends, you nibble the corn like a rabbit."

In June 1938, the Royal Horticultural Society Journal of England unbent sufficiently to offer a suggestion regarding the use of this novel food: "The best way to deal with sweet corn in the privacy of one's own home," it said, "is to boil the cobs for about 20 minutes and eat them hand-organ fashion with salt, pepper, and fresh butter on them, gnawing at the corn with one's front teeth, rabbit-like. They never taste so good in any other way. However, where the evening is a party and hands must be kept off, there are many ways of dealing with sweet corn. It can be made into soups and puddings, or served as a vegetable, sauté in butter or with cream. * * *

—JOHN A. FERRALL, PISAE.

A few figures

IF YOU'LL PARDON a few figures we'd like to quote you some to convey the magnitude of the work performed by the Office of Information last fiscal year. Remember, however, this was in last analysis your work, and without the other USDA-WFA agencies, of course, it could not have been performed. It represents our common effort.

So it is of interest to everybody that 483 manuscripts, to become scientific and popular publications and annual reports, were reviewed and prepared for the Government Printing Office. A total of 4,601 illustrating jobs had to be done—this includes drawings, graphs, charts, maps, lettering, layouts, retouching, engrossing, cover pages, posters, and so on.

Remember WFA's various Food for Freedom campaigns? Take the "Produce, Share, Conserve, Play Square" sector alone. It required preparation and issuance of posters, pin-ups, car cards, envelopes, letters, mats, portfolios, proof books, appreciation cards, acknowledgment awards, seals, etc. Then the No-Point Low-Point Food campaign required similar items in huge quantities.

You have no idea what this called for. Wartime personnel and material shortages required endless conferences, substitutions, changes in format. Cooperation with the advertising industry was something wholly new with many details to be worked out, though this was done in a most satisfactory manner. Studies

of transportation by freight, express, air, motortruck, special carrier, and mail had to be undertaken and pursued intensively. All sorts of special and rush jobs cropped up.

Meanwhile 64,977,860 copies of publications of all types were distributed from an available supply of 90,228,187, which included a carry-over of 34,126,648. Reflect on those figures, remember that Inf. also comprises divisions of press, radio, motion picture, exhibits, and special reports, and see if you don't think that the American public really gets service from USDA-WFA agencies, staff and line. Take a bow yourself!

FCIC

THESE cabalistic initials mean a lot these days to producers of cotton, spring wheat, and flax—and to returning service men and others just starting out as farmers. The Federal Crop Insurance Corporation is working at top speed on a 1945 insurance program for these three commodities.

The new program will be a cushion against crop failures and losses for individual farmers and for areas which may suffer from such disasters as flood, drought, or hail. It should be particularly helpful to new farmers, who are less able to withstand crop losses than the older hands.

Crop insurance hasn't been offered to farmers since the 1943 crop (no funds). But legislation authorizing insurance was enacted last December, saving the FCIC from the fate of a "vanishing American."

Insurance is to be available on wheat, cotton, and flax up to 75 percent of the recorded or appraised yields for unavoidable losses. Insurance may be provided in any county where written applications for contracts cover at least 50 farms or one-third of the farms normally producing the commodity. Since winter wheat is already planted, only spring seedings of wheat can be covered for 1945.

The program should aid 1945 farm production, particularly flax. Production goals call for nearly double the 1944 acreage of flaxseed to fill war and re-conversion requirements for linseed oil, used in paint.

Plans are also being completed for authorized trial insurance on 1945 corn and tobacco in a few counties. Trial insurance for each crop is limited to not more than 20 counties and for a 3-year period, but can become permanent if Congress decides that the trial program has been successful. These

crops may be insured up to 75 percent of the investment in the crop as an alternative to 75 percent of the average or appraised yield. Not more than 3 additional trial crops can be added each year.

Field representatives of WFA agencies, most of them with actual farming experience, have conferred in Washington with J. Carl Wright, manager of FCIC, on various crop insurance provisions. Their assignment has been marked "Rush," in view of the short time available before spring planting.

Century of co-ops

AS WE ENTER the second century since the famous cooperative principles were first laid down at Rochdale, England, in 1844, co-ops have reached a new high in activity, energy, and volume of business, and are looking to the future by preparing for the admitted uncertainties of the post-war period.

Most of the more successful farmer co-ops continue to be guided by principles very similar to those made famous by the weavers at Rochdale—including the principles that co-ops should deal with their patrons at market prices and return savings over costs to patrons, join together to protect themselves from trade abuses, and follow the democratic procedure of one man, one vote.

Although 1944 marked the hundredth anniversary of the Rochdale principles, farmer cooperatives in America have much deeper roots. Their seeds were sown in the pioneer days. Corn-husking bees and barn raisings are but two early examples of the cooperative spirit that has long flourished among American farmers. The first mutual fire insurance company, established in 1752, is still in existence, and more than 60 others passed the century mark before 1944. Records also show that, as far back as 1810, farmers in New York made cheese cooperatively.

Since these early days, the cooperative idea has spread to all phases of farmers' purchasing, marketing, and business services. About 10,500 marketing and purchasing cooperatives are now active, with a membership of 3,850,000 doing business at a clip of around \$3,800,000,000 a year. Many of these associations have received loans from the 13 Banks for Cooperatives which operate under Farm Credit Administration supervision.

The Cooperative Research and Service Division of FCA, as instructed by law, also studies the problems of farmers' cooperatives and provides them with technical advice upon request.

Newer forms of cooperatives include co-ops for artificial insemination of dairy cattle and frozen-locker associations. In addition to the marketing and purchasing associations, there are 800 electrical co-ops affiliated with the Rural Electrification Administration, 2,000 farmers' mutual fire insurance companies, and 5,000 mutual telephone companies. Farm Security Administration also sponsors both buying and selling co-ops among its clients, as well as co-ops for the provision of medical care. Credit co-ops include 520 Production Credit Associations and 2,000 National Farm Loan Associations, also under FCA supervision.—W. G. HOAG, FCA.

Brief but important

Eight-pager: You owe this extra, 8-page issue to savings effected by the omission of illustrations from *USDA* and to the cooperation of Miss Alice Arnold, assistant editor, and of the editor's secretary, Miss Ann Hatcher, both of whom catch twice as much work on 8-pagers as on 4-page issues.

Oops, so sorry: Meat inspection people feel burned up because we said the Meat Inspection Service processed only 118,000 carcasses last fiscal year (*USDA* January 8, p. 6, last column). Naturally, the number should have been 118,000,000. We have sinned. Forgive us these our transgressions.

Farm Work Simplification: If interested in this subject, ask Extension Service for the processed report of activities, results, and available materials, issued under this title as Extension Farm Labor Circular No. 21, December 1944.

Labor functions: Responsibilities and functions of the Office of Labor and of Extension Service with respect to labor are newly defined in Administrator's Memorandum No. 27, Revision 1, Amendment 2, January 11. Apply for copies through your own agency.

What's your score? A booklet entitled "What's Your Score?" was recently distributed to Washington employees in connection with the Department's Management Improvement and Manpower Utilization Program. The booklet was developed by A. James Martin, Office of Personnel, and in an interesting manner provides a means for taking a self-inventory of your job. It contains a self-quizzier, some good suggestions, and many illustrations. The bureaus plan to make it available for field employees. Keep your eyes open for it and be sure to get a copy—you'll enjoy it.

Get a Bible: An individual wrote not long since to a Federal Government agency which shall be nameless here. After awaiting a reply for 3 weeks, he wrote again saying, "Get hold of a Bible and look up Psalm 22, verse 1." If you are in the habit of delaying replies to incoming letters, we advise you to do the same.

Gripe: Too many people mix rubber bands up in the same glass dish with paper clips. At least every time we try to swipe one we get tangled up with the other. Indicates a disorderly mind to our way of thinking!

Your agency isn't mentioned? Employees sometimes complain that their interest in *USDA* would be greater if their own agency were mentioned in it more. Well, for one thing, *USDA* seeks to interest you in what other agencies are doing and it is devoted largely to departmental unification. But we have in several agencies eager individuals who are excellent writers; they voluntarily supply us with piquant and readable items about doings in their agencies; hence their agencies get more attention than others. If your agency seems neglected, appoint yourself a committee of eight to find out why someone doesn't do a good reporting job to *USDA*.

USDA-WFA Structure-Functions: We have at last revised *USDA* mimeographed documents Nos. 1 and 2 in line with a reorganized WFA. No. 1, Structure, Functions, and Origins of the Department of Agriculture and Its Constituent Agencies, is briefer, and emphasizes the over-all structure of *USDA-WFA*. No. 2 has 65 pages and is entitled "Department of Agriculture-War Food Administration and Constituent Agencies." While it contains expositions of *USDA-WFA*'s evolution in chronological sequence, its main emphasis is upon definitive administrative and functional accounts of the various agencies, which tell about their legal justification, origins, structure, and activities.

AAA: Some misguided souls imagine the Agricultural Adjustment Agency hasn't much to do these days because its responsibilities have changed somewhat. During 1943 some 60 different soil- and range-building practices were carried out, affecting 4,427,000 farms. Two million tons of superphosphate and 19 million tons of limestone were used in the 1943 program. Crop yields have increased steadily ever since this program began in 1936. Add in the goals work of AAA committeemen, reseeding 1.5 million acres of depleted pastures, strip cropping 7 million acres, contour farming 12 million acres, terracing 305 million linear feet of land, planting 43,000 acres of trees, and constructing 988,000 dams in waterways and gullies—and you can see AAA is plenty busy. During the past fiscal year it assisted farmers and range-land operators to the tune of \$300,000,000, paid for completed conservation practices. For details see AAA's annual report.

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USDA

FOR MARCH 5, 1945

Tolley of BAE

HOWARD R. TOLLEY, newly appointed U. S. representative on the United Nations Interim Commission on Food and Agriculture, and Chief of the Bureau of Agricultural Economics, is a thorough-going Government career man. Since 1912, when he became a computer in the U. S. Coast and Geodetic Survey, his life has been a succession of upward steps in Government service, with time out only once as director of the Giannini Foundation of Agricultural Economics at the University of California.

Tolley is another Indiana citizen in the roster of Department staff members, having been born in Howard County, Ind., and graduated from the University of Indiana.

In 1916 he joined the Department as a scientific assistant in farm management; in 1922 he became a staff member of BAE, and by 1928 had risen to the position of Assistant Chief. The period from 1930 to 1933 was spent in California at the Giannini Foundation; then he returned to Washington to join the Agricultural Adjustment Agency, where he rose rapidly, becoming AAA Administrator in 1936. In 1938 he entered upon his present duties as BAE Chief. For several months during 1942 he took leave from the Bureau to organize the food, fertilizer, and apparel division of OPA.

He is one of the pioneers in the development of a methodology for evaluating effects of broad economic forces upon agricultural production, prices, and income. In cooperation with Dr. John D. Black and Mordecai Ezekiel, he developed a way of measuring least-cost and highest-profit combinations of enterprises in farm production. Again, with Ezekiel, he worked out a simplified method for arriving at multiple correlations, greatly reducing the time and work required for this involved statistical operation. Then, as instructor of statistics in the Department Graduate School, he trained Department statisticians in the use of the new technique and became to many of them a guiding spirit in dealing with problems inherent in this highly technical research.

Stone tub—copper tank

Although Tolley occasionally makes formal speeches, he prefers to sit down and talk with people informally, giving plenty of opportunity for questions and discussion. He seldom refers to notes in making a talk; figures on livestock numbers, cotton and wheat carry-overs, par-

Insects' Waterloo

MEDICAL AUTHORITIES recently gave a Senate committee an account of medical achievements during this war. Of the four listed as outstanding, two—penicillin and DDT—are developments in which scientists of the Agricultural Research Administration have played a decisive part.

"In my opinion DDT is the war's greatest contribution to the future health of the world," said Brigadier General Simmons, Chief of Preventive Medicine for the Army, in a recent Saturday Evening Post article. So it looks as if the agricultural researchers have again done something worthwhile for humanity.

At the Orlando, Fla., laboratory of the Bureau of Entomology and Plant Quarantine, I had the privilege of attending the school which the laboratory people hold once a month to instruct Army and Navy officers in the use of the new insecticides that are already doing so much to prevent disease and suffering—not to mention an infinite amount of sheer irritation. There I visited briefly with some of the men and women responsible for developing DDT as the No. 1 louse and mosquito killer—Knippling, McAlister, Culpepper, Wisecup, Eide, Greenwald, Madden, Schroeder, Gahan, Hushman, Longcoy, McCullough, and others.

I saw how DDT insecticides work, how they are sprayed over mosquito-infested areas by airplane, and how the research is done. I saw colonels and majors listening attentively—and respectfully—while a corporal assigned to the Orlando laboratory explained the chemistry of DDT.

DDT, lice, and history

What I remember most vividly are the lice and mosquitoes bred and maintained at the laboratory to get the enormous numbers needed for the insecticide experiments—a one-time coffin factory converted into a sort of mosquito lying-in hospital where millions of wigglers are born in miniature bathtubs, with two women scientists serving as the entomological obstetricians, and 40,000 lice nestling contentedly among pieces of

cloth in glass dishes! "Aren't they beautiful?" said the expert in mass louse production.

And those same lice carefully transferred to the bare back of a man, who did not wince as they made 40,000 nursing bottles out of his skin; for the lice must be fed twice a day. And men with lice under bandages taped on their arms and legs, to test the killing power of lousicides. And other men testing possible insect repellents by sticking their bare arms—one treated with the repellent, one not—into cages literally swarming with voracious mosquitoes. The number of honest-to-God stabs they get on the treated compared with the untreated arm, measures the effectiveness or ineffectiveness of the repellent.

These laboratory employees who volunteer to serve in rotation as insect cafeterias are blood donors of an unusual sort. Often they have sons or other close relatives in the Army and Navy, so they know what it's all about.

(Incidentally, I learned that some people are practically mosquito repellents themselves. Apparently I'm one. A mosquito has to be awfully hungry before he will try to get a meal out of me. Chiggers are different. I fascinate them.)

There's vision at Orlando. It will go down in history as the place where man finally won an age-old battle against some of the worst of his insect enemies.—GOVE HAMBIDGE, ARA.

Top personnel changes: Lee Marshall resigned from his positions as Director of Supply and Director of Marketing Services in WFA, effective January 31, to return to private business from which he had been on leave of absence. Lt. Col. Ralph W. Olmstead then became Vice President and Director of Supply of Commodity Credit Corporation, and chairman of the Interagency Food Importations Committee and of the Food Requirements and Allocations Committee, also being responsible for the work of the last in connection with the Combined Food Board. C. W. Kitchen was designated Director of Marketing Services. Carl C. Farrington continues as Vice President of CCC and Director of Basic Commodities. On February 3, E. C. Auchter resigned as Administrator of Agricultural Research, and Assistant Administrator P. V. Cardon was appointed to succeed him. Dr. Auchter becomes Director of the Pineapple Research Institute of Hawaii, with headquarters in Honolulu.

ity price indexes, workers on farms, and a wide range of other agricultural subjects are always at his mental fingertips.

His hobby is gardening, and he gives it year-round attention at his home in Alexandria, Va., where, incidentally, the first permanent bathtub in Virginia—a tub, and copper tank heated by a fire pot, with spigot carrying hot water to the tub—may still be seen.

Mr. Tolley has written much on subjects of agricultural and general interest, and a list of works prepared either alone or in cooperation with others includes many Government bulletins, treatises, pamphlets, and articles. If you want to read an interesting and highly provocative discussion of the farmer's role in our democracy, read his book, *The Farmer Citizen at War*, published by Macmillan in 1943.

Cotton pickers

IN A LITTLE agricultural publication from Texas we read about the operations of a mechanical cotton picker. The illustrations make it plain that the gadget does a good clean job, though the ultimate bale is not of quite so high quality as those hand picked. The robot picker gets 95 percent of the fully opened cotton in a field, however, though at a loss of about one-half a grade as compared with hand picking.

Hand picking has long been a costly operation in cotton growing. In the Delta section this has reached as high as \$50 a bale, or 10 cents a pound, of lint cotton. That was exceptional. But in controlled tests it was found that, while machine picking could be done at \$5.26 a bale, hand picking cost \$39.41. Making a due allowance for the lower grading of the machine-picked cotton, there will still be a net saving of \$24.82 per bale for machine-picked over hand-picked cotton.

Where will all this lead us? What will be the economic and sociological impact of mechanical cotton picking? Today labor is hard to get, but what of the future? The crucial question is also asked by the little agricultural publication, "What's to become of the displaced families, if cotton is placed on a mechanical production basis?" That is the \$64 question in this cotton quiz. Will this development drive more small, low-yield cotton land into diversified farming? Mechanization is coming inevitably. We must prepare for it.

You can read no better discussion than *Post-War Problems of Cotton*, Secretary Wickard's statement of December 4, 1944, before the Special Committee of the House Committee on Agriculture on

Post-War Farm Programs (USDA 3691-44). And, while you are at it, also get from Press Service, Office of Information, his two statements on Post-War Objectives of Agriculture given before the House Special Committee on Post-War Economic Policy and Planning, August 23 and August 31, 1944 (USDA 3005-44 and 3101-44).

Victory Gardens, U. S. M. C.

THE MARINES make Victory Gardens wherever they go and can. Battlefields once covered by creeping jungle growth now sprout corn, tomatoes, watermelons, cucumbers, and other vegetables, to feed marines and to ease up the shipping situation. As one chap put it: "We stick the seed in the ground, have a night's sleep, and go out the next morning to harvest the crop." Of course, that's a bit of spoofing, but crops do grow fast where the marines plant them.

They are also grown by experts. For instance, First Lt. Byron D. McKee had long experience on a Colorado ranch; the marine battalion office, on finding this out, made him a farmer again. But instead of irrigation as in Colorado, drainage was the big need, then planting, fertilization, cultivation, insect and disease control, and harvesting, just as at home. Starting from scratch, Lieutenant McKee soon found able, experienced assistants.

They got to work with bulldozers, tractors, plows, cultivators, and planters, and soon corn, Chinese cabbage, lettuce, radish, and mustard were growing furiously where enemy airfields had been. With two cultivators hitched to a jeep, things went fast and McKee is convinced the jeep has a big place to fill on post-war farms. He used it successfully also to pull a double-tandem disk-harrow and for dozens of odd jobs.

Grasshoppers, web spiders, cutworms, and beetles, that appeared to have had special training from the enemy as saboteurs, were blitzed with cryolite, calcium arsenate, rotenone, and other delicacies. Plant lice got a special nicotine sulfate dessert; one helping usually sufficed.

McKee kept a complete set of books on his farm showing exactly when each crop was planted, fertilized, cultivated, sprayed, dusted, and so on, with weather conditions and progress of the crop also noted. Crop rotation enabled the farm to serve fresh vegetables to several thousand marines the year round. Finally McKee's father wrote him: "My hat is off to the Marine Corps—they succeeded after 2 years in making a farmer out of you when I failed in 32 years."

Harter retires

AT ONE of the Department's scientific seminars some years ago, a plant pathologist of the Bureau of Plant Industry, Soils, and Agricultural Engineering, discussing the work under the projects in his charge, startled his audience by speaking with enthusiasm of the fact that one of his major projects, had become of minor importance! The speaker was Dr. Leonard L. Harter, who retired February 28 after 41 years of service in the Department, all in the same Bureau.

He was referring to the work that had resulted in the development of effective control measures for sweetpotato diseases, particularly black rot, which had been causing a loss of 35 percent in this important food crop. The new control measures, adopting the principles of seedbed and field sanitation, plus adequate seed treatments, cut the loss to 10 percent. These control measures, developed in close cooperation with the agricultural experiment stations, represent an annual saving of \$5,000,000. Better still, they make possible a supply of good sweetpotatoes practically the year round.

Dr. Harter, an international authority on plant diseases, particularly those of beans, peas, and sweetpotatoes, is the author of more than a hundred publications in this field.—JOHN A. FERRALL, PISAE.

The Captain gets service

DR. LIPPERT S. ELLIS, regional agricultural analyst of the Bureau of Agricultural Economics in Little Rock, Ark., and chairman of the Regional Post-War Planning Committee for the South Central Region, recently had an interesting contact with the War Department.

This came via an SOS phone call from Capt. Taylor D. Wilkes of the Separation and Classification Section at Camp Robinson, Ark. The captain said he was receiving numerous inquiries from the boys passing through his discharge center as to where they might find information on farming opportunities. His section had just become active and little printed material was available. However, he had seen a copy of the USDA pamphlet, *Shall I Be a Farmer?* and was much impressed with it. He wanted additional copies, as well as any other available material along the same line, and finally got in touch with BAE.

Since the Department has been emphasizing this particular phase of assistance to service men, Dr. Ellis had

accumulated several pamphlets and bulletins on the subject. He took these out to Camp Robinson and had quite a long visit with Captain Wilkes. The Captain deeply appreciated this service and indicated that the material was just what he had been looking for. Later, the Office of Information furnished him with a quantity of each of the bulletins.

As a result of this visit, Captain Wilkes was induced to speak before the Little Rock USDA Club. He seemed pleased to have this opportunity, not only to review the work of his section for the USDA group, but also to become better acquainted with the various agricultural agency representatives in Little Rock.

Later a request for similar materials was received from Capt. John McVeagh at the Separation Center of Fort Sam Houston, Tex.

"Information, please"

"DO BABY RATS carry as many germs as adult rats?"

"Please put me in touch with the tall man in the fruit division who wears glasses."

"On which side of a cow does the milker sit?"

"May I bring my cats across the border into the United States?"

These questions are typical of the dozens posed daily to Roby W. Stehr and Lillian M. Williams, the efficient ladies who staff the Department's information and directory booth in the lobby of the Administration Building in Washington.

All day long inquiries are received from within and without the USDA and WFA, over the telephone (sometimes by long-distance), and from visitors in person seeking to contact USDA-WFA officials and activities, from farmers, sightseers, students, school children, and (believe it or not) from commercial information-furnishing agencies. Indeed, the ladies more than once have experienced the thrill of seeing in public print answers which they supplied or were instrumental in obtaining for these "question-and-answer" concerns.

While many inquiries relate to the room or telephone numbers of officials, others are "subject" questions which run the gamut of agricultural activities. Some concern other Government agencies, their locations, officials, and functions. Others may be classified as "sightseer" questions—when is Congress in session, where is the Bureau of Fisheries, what time does the National Museum close, how may various points of interest in Washington be reached?

Visitors are often under the impression that we have a permanent agricul-

tural museum where they may see scale models of farms, farm machinery, soil conservation displays, samples of grains and cereals, fiber and fiber plants, soil samples, and other items of interest to the professional farmer. There was a museum once, but that day passed long since.

No question too difficult

Obviously, not all of this diversified information is stored in the brains of the directory-booth staff. Some questions have to be referred to the appropriate specialists. A great part of the information given directly is extracted from administrative and operating directives and memoranda, radio transcripts, press releases, daily newspapers, and agricultural journals. If the question is too difficult to be answered immediately, the caller is told that it will be necessary to answer him later.

It is a matter of professional pride to the staff that no question is too difficult to be answered. If they do not know the answer, they know where it can be found.

The directory service, which is under the supervision of the Office of Plant and Operations, was inaugurated in 1933. Originally planned to direct visitors to the various offices and laboratories of the Department, the demands for service have grown to such proportions that, as a matter of accommodation to the public, thousands of questions bearing no direct relation to agriculture are answered yearly.

Stockberger memorial

AS A MEMORIAL to the late Dr. W. W. Stockberger, who served in the Department from 1903 to 1944, the Forest Service has presented to the Library two bound volumes of his collected works, including a biographical memoir and a bibliography.

The variety of subjects on which Dr. Stockberger wrote is impressive. They include drug plants, genetics, hops, plant physiology, tannin, sunflowers, poisonous plants, vanilla beans, social obligations of a botanist, and formulas for calculating normal plot yields, as well as much on personnel and public administration.

When FS proposed adding to the Library some appropriate book or set of books as a tribute to a loyal friend and longtime Director of Personnel of the Department, Ralph Shaw, Librarian, immediately suggested that the most appropriate memorial would be a collection of Dr. Stockberger's own works, systematically collected and bound. He offered the full cooperation of the Library.

The memorial is thus the work of many hands. Many of the papers had to be reproduced by the photostat process and this was done under supervision of Henry Flemmer, of the Library staff. The binding was done by Albert A. Cannizzaro, also of the Library staff. Both requested the privilege of contributing their services.

The resulting volumes are a splendid reflection of Dr. Stockberger's penetrating intellect and broad versatility.

Knowledge synthesizers

YOU HAVE PROBABLY had the experience of asking scientific specialists very simple questions. You got partial answers. No scientists care to commit themselves beyond the very narrow confines of what they know certainly. That is why scientists have been kidded about knowing more and more about less and less. But it is to be remembered that, when they express an opinion within their field of operations, it must be as nearly truthful and precisely right as it is possible to get it.

When you consult them, therefore, while you get great precision and exactitude, you have to piece your answers together, unless your question happens to fall squarely within the limited field of one scientific worker—which is rare. You have to talk to other scientists whenever the subject matter overlaps their field and fit their answer in. This can be a tiresome and sometimes an irritating process, especially if you are in a hurry.

That is why we have information specialists, writers, press and radio workers in the Department. They are our synthesizers of knowledge. You simply have no idea of the painstaking care with which they piece together, after many consultations, what often comes out finally as quite brief press releases, or radio programs, or long documents and reports. If scientists tend to know more and more about less and less, these information people spread themselves thin and occasionally feel that they know less and less about more and more.

But they are not the warts on the face of progress some research workers imagine. If we are to serve the public efficiently, we must have writers and information specialists who will undertake the delicate and painstaking task of piecing together authoritative material derived from many individuals and agencies, and synthesizing this into something the ordinary citizen can utilize practically.

The writer of these lines has been in turn research worker, editor of scientific and technical material, and information specialist. He has had excellent opportunities for observation. It is his settled conclusion that progress cannot be achieved and the public cannot be served properly unless all three—the researcher, the editor, and the information specialist—work together to these ends.

“More efficient farming”

THE ABOVE HEAD is from the annual report of the Bureau of Agricultural Economics. It develops that production per farm worker in 1944 was twice as great as in 1910, three-fourths more than in the previous war years of 1917–18, and one-third more even than in 1939. Moreover, an unusually large part of the farm-labor force in 1944 consisted of the very old and the very young (but neither too young nor too old), women, and inexperienced workers from towns and cities.

Favorable crop weather must, of course, be credited with some of this greatly increased wartime production. But even if the weather were only average, crop yields per acre would be one-fifth higher than in the 1923–32 decade just before the drought. That increase may be attributed to improved technology, meaning not only the use of more machines in agriculture, but improved plants, animals, and cropping methods as well.

Hybrid corn yields at least 20 percent more than open-pollinated corn under identical conditions. Cotton yields have been 50 percent higher in the past 4 years than during the 1923–32 period. A large part of this increase has been because cotton is confined to better land, because more fertilizer and winter cover crops are used, and because cotton varieties have been improved by scientists, while boll weevils and other insects damage cotton considerably less than in 1923–32. New soybean varieties and new disease-resistant wheat and oat varieties promise greatly increased yields also.

We likewise have better breeding stock, improved disease control, and more effective feeding methods to increase livestock yields per worker. In the span of years between 1909 and 1943 hens were improved to lay a third more eggs per hen.

Of course mechanization has gone on apace. The number of milking machines on farms January 1, 1945, was 49 percent greater than 3 years earlier. During the same period the number of combine harvesters on farms increased

23, and the number of corn pickers 29, percent. Again, the use of tractors and motor power on farms has, since 1920, released for the production of commodities for sale over 60 million acres of crop and pasture land formerly used to produce feed for workstock.

If this trend continues, there should be 460,000 additional tractors on farms by 1950, each capable of saving 800 man-hours of labor a year, and, all told, releasing another 8 to 10 million acres for the commercial production of crops for sale. Mechanical power is now becoming adaptable to small as well as to large farms and the farmer will soon show greatly increased output per worker.

What shall we do with this enhanced productive power—increase rural slums and technological unemployment and decrease farmer income? Unless we think and plan ahead, that sort of thing can happen again, but we just better not let it happen this time.

Brief but important

WFA agencies: WFA now has in it the following staff agencies: Offices of Price, Surplus Property and Reconversion, Transportation, and Water Utilization, and the National War Board, five in all. Its program agencies are: Agricultural Adjustment Agency, Commodity Credit Corporation (CCC vice presidents function as Director of Supply and as Director of Basic Commodities), Extension Service, Farm Security Administration, Federal Crop Insurance Corporation, Office of Labor, Office of Marketing Services, Office of Materials and Facilities, and the Soil Conservation Service, nine in all.

Frank Grubb: The Albuquerque Tribune printed an obituary notice the other day on the death of one of the Forest Service's veteran fire fighters, “Frank Grubb.” Frank was a pack mule. He went to work for the Coronado National Forest in 1909. In 1939 he was retired from active duty after 30 years of faithful service. His retirement annuity was in the form of green pasture. Good mules like Frank have been invaluable to FS in carrying supplies to fire fighters.

Farm housing: About two thirds of the Nation's farm families are ill housed. Nearly half the inadequate houses they occupy are quite beyond repair. Why is this? What can be done about it? Read Secretary Wickard's statement on better farm housing, before the Subcommittee on Housing and Urban Development of the Senate Special Committee on Post-War Economic Policy and Planning. Ask Press Service, Office of Information, for USDA 106-45. The statement was made January 17.

Better management: It is earnestly suggested that all USDA-WFA personnel interested in better management and improved manpower utilization—and that should include all of us—read chapter 16, Modern Tools for a Modern Job, of David E. Lillenthal's book, TVA, Democracy on the March. Verbum sap.

FAR artist: The Office of Foreign Agricultural Relations reports that its O. Raymond Carrington, editor of Agriculture in the Americas, is by avocation an accomplished artist in oils. This was authenticated by a prize of \$100 for his painting, Harpers Ferry Nocturne, awarded by the Washington Evening Star. His was the best oil in the annual winter exhibit of the Society of Washington Artists, held at the Corcoran Gallery of Art. The picture catches the spirit of the scene very realistically and the ghostly effect of moonlight is well reflected. Carrington's was best of some 70 paintings selected from 350 entries for the Society's 54th annual show.

Food technology: Massachusetts Institute of Technology has a Department of Biology and Biological Engineering. It has just announced a research program in food technology among its post-war enterprises. Methods of retaining natural flavors and nutritive elements in processed foods will be studied. Packaging investigations will be made, plastics being especially emphasized. Food flavors will be smelled out; attempts will be made to find out why they are what they are, and how to control their development and intensity.

Rural medical care: There was an interesting symposium on rural hospitalization and medical care at the third war conference of the American Hospital Association last October. Among those participating was Kenneth E. Pohlmann, senior health services specialist of the Farm Security Administration, who spoke for the medically indigent. See the editorial, p. 91, Journal of the American Medical Association for January 13, 1945, and Hospitals for December 1944, and proceed from there if you want further information.

Laws: Our USDA mimeographed document No. 8, Abridged List of Federal Laws Applicable to Agriculture, has just been revised in the Office of the Solicitor, and copies which carry through to the end of 1944 are available for distribution. You'll find this a handy chronological reference list of the laws which affect or are enforced by USDA-WFA.

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USDA

FOR MARCH 19, 1945

Boyd of Price

H. B. BOYD, Director of the Office of Price, a WFA staff agency, is well fitted by background and experience to hold his present job. He did his undergraduate work in extension and marketing at the University of Saskatchewan and took his Ph. D. at Cornell, where he was also an instructor in marketing. In addition he did research on cigar tobacco at Connecticut State College.

In 1933 he entered the Agricultural Adjustment Administration (now Agency), where he worked primarily with the direction of commodity programs and of programs in the Insular Region. From May until December 1942 he was vice president of Commodity Credit Corporation, supervising foreign-purchase and subsidy programs.

On January 1, 1943, Boyd became assistant director of the Office for Agricultural War Relations (set up May 5, 1941—its functions were later dispersed elsewhere in WFA) and secretary of the Food Advisory Committee established by the Secretary December 19, 1942. Later in 1943 Boyd transferred to WFA, on November 29 that year became Deputy Director of the Office of Production, on February 29, 1944, transferred to the Office of Price to become Deputy Director, and was appointed Director on April 1, 1944.

One of Boyd's most important assignments was that of "walking encyclopedia" for Senators sponsoring the bill which became the Agricultural Adjustment Act of 1938. They even had him sit with them on the floor of the Senate during debates so as to have ready access to the official facts and figures in his head and his briefcase.

Boyd never "throws his weight around." Rather, he seems to hide his knowledge behind a screen of modesty. But when WFA officials want to locate the "bugs" in a proposition, they know he can find them—but quick!

When you call at his office, Boyd's ready smile and the twinkle behind his glasses—like St. Nick's wink and twist of head—soon give you to know you have nothing to dread. Not only that: He's good company after hours, say the fellows who know, and can take care of himself in a competitive indoor sport based on mathematical probabilities.

"He has a good head on him," say his associates. And for a different reason, an artist would agree, for the firm jaw, the wide-set brown eyes, the high forehead, and the thick black hair do add to "a very good head."

"Kine"

THE Bureau of Dairy Industry is a modest, quiet little member of the Agricultural Research Administration, not given to boisterously singing its own praises. But it cannot keep its annual report altogether secret, so we peeked. The extent and diversity of its activities proved surprising.

First off, its research has been helping cheese manufacturers so much that the average percentage of U. S. No. 1 cheese made by Minnesota factories assisted by BDI field men rose from 36 in 1942 to 99 in 1943. Now the possibility of curing cheese much more quickly is being hopefully investigated.

Quick deterioration of many dairy products—butterfat and dried whole milk prominent among them—has been traced to their oxygen content. If the oxygen is kept down, or is replaced with inert gas, spoilage is reduced. Methods of accomplishing the desired results were devised.

Six processes for making lactose from cheese whey—and 6 or 7 million pounds of milk sugar are now used annually in growing molds that yield penicillin—have been developed and released to manufacturers. BDI research has also done much to improve the appearance and palatability of wartime ice creams and sherbets.

To raise a heifer calf to milking age costs about \$100, and about 2 million of them annually turn out to be unprofitable milk cows. So BDI scientists are making studies, the results of which will enable owners to discard potential low producers early in their lives. Incidentally they have also found that: Neither the abundance of the mammary veins on the surface of the udders, the size and length of the abdominal milk veins, nor the size of the holes through which the milk veins enter the body surely indicate that the animal is or will be a good producer. Yet judges of dairy cattle have long given considerable attention to these points.

Feed from coal, air, water!

Urea looks like fine stock salt. It can be made from coal, air, and water. While it contains no protein, it can supply dairy cattle with the nitrogen they require to make proteins for themselves. Several State stations have worked for some time on urea as a feedstuff. Recently BDI found that the milk production of cows fed urea declined only two-thirds as much in 100 days as that of cows consuming other feeds.

Farmers normally use about 3 billion pounds of whole milk a year for calf feed. It appears from BDI work that Holstein heifer calves do very well on skim milk, along with their grain mixture and timothy hay, and do not have to have whole milk at all. Results with Jerseys were less satisfactory.

The Bureau continued to accumulate evidence that the practice of feeding poor-grade timothy hay to dairy cows is unsound, because it is a poor source of vitamin A. BDI continued its studies of a wholly new and hitherto unknown, but as yet unidentified, growth promoting factor in milk. It delved further into the composition and properties of milk proteins.

It fostered herd improvement. It showed that dairy herd-improvement-association cows produced 100 pounds of milk for every 99 cents worth of feed they consumed, whereas the figure was \$1.32 per 100 pounds for all cows milked in the U. S. BDI tabulates and keeps records on thousands of sires, matings, and milk-production records. Busy little bureau, eh wot?

FCA news: The Nation's farm-mortgage debt is the lowest in 30 years. Repayments on loans made through our Federal land-bank system have effected much of this reduction. Farm Credit Administration also reports that large repayments have been made on loans refinanced during and after the depression years. Farmers who suffered then are now getting out of debt. As much as \$20,815,000 has been placed in future-payment funds, too, which will enable farmers to meet interest charges and principal payments to come. Farmers also are building substantial reserves in war bonds and bank deposits. Thus they hedge against post-war readjustments in the very wisest way.

In Baltimore

THE OTHER DAY we ran over to Baltimore at the invitation of the local USDA Club. Agency offices there seemed rather astounded to have a Washington visitor because Washington usually deals with them by telephone. USDA-WFA has possibly 350-400 workers in Baltimore all told, however.

Biggest representation is Farm Credit Administration—a district office, whose interesting personnel man, Charles J. Southworth, attended the USDA Club meeting. It was held in the court room (yep, court room, and nobody *had* to come, either) of the Appraiser's Stores, with Pres. W. A. Ranck, of the Bureau of Entomology and Plant Quarantine, as chairman.

We also called on Niles S. Baldrige, State representative of what was Distribution, and he, too, came to the meeting. We dropped into Forest Service's Timber Production War Project. Eminent practical publications on Operating Small Sawmills (M. P. 509) and on Maintenance of Inserted Tooth Circular Saws (processed) drew our favorable attention.

Farm Security Administration maintains a State office here, but pretty far from the center of town. The nearest extension county agents are at Towson and at Ellicott City. Processed foods are inspected by pleasant and attractive ladies—we said "Inspectors Are Ladies Now" (USDA October 30, 1943), and they are—though this is slack season for this area, and some of the women inspectors have gone to Florida where things are more lively in their line in winter—inspecting now, *not* vacationing.

Then we found livestock and meat grading, and Bureau of Animal Industry's tuberculosis eradication work. We met E. R. Jackson of the former activity, also Herbert L. Geer of processed foods. The club meeting was small and select—mostly top drawer people, one woman, possibly 14 or 15 present—but appeared enthusiastic. These USDA-WFA workers are so close to Washington headquarters we can easily overlook and almost forget them, but they are there, serving the public, as "aren't we all?"

Ah, there, "Mac"

BY KEEPING bad company, the gooseberry has left a stain on the great berry family's escutcheon—probably because it is a goose. Anyway, we know that it harbors the disease which later spreads to white pines and destroys them.

But there is a reverse to the shield.

It seems that there are black sheep and white among berries as among humans. Dr. H. W. Allen, Entomology and Plant Quarantine, finds that in some areas wild blackberries are protecting peaches against the destructive oriental fruit moth! It's because the blackberries are keeping good company. They give a home to "Mac," whose full name is *Macrocentrus ancylovorus*.

The female *Macrocentrus* wasps lay their eggs in strawberry leaf-roller worms that overwinter on the blackberry bushes. These eggs hatch out what become in the spring "Mac" wasps about the size of a large mosquito, and these move from the blackberry bushes to any peach trees that are nearby. And what they do to the oriental fruit moth is plenty.

Agricultural researcher and statesman

AFTER 25 years the "bible" of the range stockman still remains James T. Jardine's Range Management on the National Forest (Department Bulletin 790)—originally published in 1919 and three times reprinted without change. The fact is that "Jim" Jardine's investigations, as set forth in this and other publications, brought out principles on which are founded the standards of good grazing practice over the whole western range country. Appointed in 1931 as fifth Chief of the Office of Experiment Stations since its creation in 1888, he has become an administrator well known to and greatly appreciated by leaders of experimental work in agriculture in all States and Territories.

Under Dr. Jardine, OES has continued its original policy of "participation rather than control" in its administration for the Department of the Federal grants to States for agricultural research. This involves cooperation with the State agricultural experiment stations by helping in their development of research programs under these grants, by providing information specifically requested by their directors, and by acting as a liaison agency between the stations, the Department, and other organized agencies. The Chief of OES has thus virtually become the spearhead of attack by station agencies on the Nation's agricultural research problems, now intensified by wartime demands and exigencies.

How has this man attained such eminence in the field of scientific research and such a reputation as successful administrator and outstanding agricultural leader? He abhors fanfare and bally-

hoo, but there are reasons, facts that speak for themselves, and some of these you should know.

Born on a livestock ranch in 1881, a native of the "big potato State," his boyhood days were spent in tasks of the farm—milking cows, riding the range, and in his late teens serving as full-fledged cowboy and ranch hand in nearby Montana—where he imbibed the basic integrity of nature as mirrored in mountain and plain. Ranching, railroad engineering, and work with the Reclamation Service filled the summer vacations from college activities, and in 1905 there came a bachelor's degree from Utah State College. Now followed two years of teaching—than which no better initiation in leadership could perhaps be found.

Pinchot lieutenant

Jardine's professional career really started, however, when he entered the Forest Service in his middle twenties under the lieutenantancy of Gifford Pinchot—first as special agent but soon becoming forest supervisor. In 1910 he was appointed inspector of grazing and placed in charge of the national-forest range investigations and surveys. In this capacity during the following 10 years he became a recognized authority on range-utilization problems.

A new turn of the wheel made him director of the Oregon Agricultural Experiment Station in 1920. The 11-year period of his leadership there became one of steady development and growth—both for him and for the institution. While he was holding this position there came a unique opportunity for widened contacts through a survey of the land-grant colleges and universities undertaken under the auspices of the Office of Education, where he headed a group of 10 station directors in interpreting and presenting the findings on agricultural research in these institutions.

From time to time Jardine has been selected for various other important activities. Among these was a study of the agricultural situation in Alaska and service on the standing committee on experiment-station organization and policy of the Association of Land-Grant Colleges and Universities, over a period during which an unusual number of important problems were under consideration.

Mix these all together and you have the man, mature in experience and judgment. You can understand why in 1931 he was appointed Chief of OES, why in recognition of his attainments D. Sc. degrees were conferred on him by Kansas State College in 1935 and by Clemson

College in 1937, and why he is held in general regard today as a practical and productive researcher, an agricultural statesman, and a trusted coordinator and administrator whose Scotch integrity can be relied upon—FREDERICK V. RAND, OES.

Rural fiction

THE FOLLOWING LIST of rural fiction, 1944, was compiled by Miss Caroline B. Sherman, of the Bureau of Agricultural Economics, who knows a good book when she sees one. While she by no means presumes to say that these are the "best" rural books of the year, she does think they would interest USDA-WFA readers:

The Red Cock Crows, by Frances Gaither, Macmillan, a thrilling narrative of early plantation life.

Waters Over the Dam, by Harry Harrison Kroll, Bobbs-Merrill, a boyhood story of Alabama cotton fields a generation ago.

Swing the Big-Eyed Rabbit, by John Pleasant McCoy, E. P. Dutton, boyhood in the Virginia mountains and in a mission school.

Blackbirds on the Lawn, by Jane Morton, Coward-McCann, a clean and cleansing story set in the rolling Kentucky country.

Hackberry Cavalier, by George Sessions Perry, Viking Press, conscious and unconscious Texan drollery in a rural setting.

Colcorton, by Edith Pope, Charles Scribner's Sons, fine characterization and powerful theme on the Florida coast.

Old Mitt Laughs Last, by Clara Childs Puckette, Bobbs-Merrill, choice contemporary folklore of the Gullah Negroes of the Sea Islands.

Strange Fruit, by Lillian Smith, Reynal & Hitchcock, a milestone book about controversial racial problems in a small Georgia town.

Winter Wheat, by Mildred Walker, Harcourt, Brace & Co., an account of girlhood and youth on a Montana dry-land wheat farm.

Dehydration not a dry subject

ONCE UPON a time when we spoke of dried fruits or vegetables we meant those that had been dried in the sun; *evaporated* meant that the moisture had been removed by artificial means. When we wished to be impressive, we said *dehydrated*. Now everybody's saying dehydrated!

But dehydration isn't a dry subject; not by a long shot. It's fresh, interesting, and vitally important. That's why some 80 varieties of peaches, 35 of sweet corn, 25 each of potatoes and sweetpotatoes, 40 of snap beans and onions, 30 each of carrots and beets, and more than 40 of pumpkin and winter squash have been dehydrated at the Plant Industry Station at Beltsville.

These tests were essential because prompt advice was needed as to the varieties best suited for dehydration. Con-

sequently the results of these tests have been written up promptly and have appeared in more than a dozen technical articles in various journals circulating among dehydrator operators and food preservers.

Pigs may be pigs, but a peach is quite likely to turn out to be a "lemon" if the wrong variety is used for a particular type of preservation. An eastern processor of fruits discovered this—after spending \$50,000 in trial-and-error tests without getting a satisfactory product in frozen peaches. He came out to the Beltsville station for help.

"What variety have you been using?" asked Dr. Joseph S. Caldwell, who—with Charles W. Culpepper, H. H. Moon, and A. T. Myers, all of the Bureau of Plant Industry, Soils, and Agricultural Engineering—conducts the tests on fruit and vegetable utilization. The answer solved the problem. This processor had been using a variety of peach absolutely unsuited for freezing preservation. Dr. Caldwell told him that no fewer than 56 varieties of peaches had been tested for freezing and but 9 had resulted in first-class products. The processor was advised to use any of the 9 that happened to be readily available to his factory and his problem would be solved. He did—and it was!

Dehydration offers problems of the same kind. Already, as a result of the studies at Beltsville, it is possible to advise processors as to the varieties most likely to give a satisfactory dried product, and even the stage of maturity at which each variety will give the best results. It has been found, for instance, that a much better dehydrated product may be obtained from a variety grown under favorable circumstances than from the same variety grown under less desirable conditions.—J. A. FERRALL, PISAE.

Gibbs goes to Mexico

AFTER 20 years of service in USDA, J. Barnard Gibbs, Chief of the Tobacco and Tropical Products Division, Office of Foreign Agricultural Relations, left in February for the position as agricultural attaché in the U. S. Embassy in Mexico City. His new appointment, although in the American Foreign Service Auxiliary of the Department of State, will be a continuation of USDA service in the field of foreign agriculture.

Since 1939, Gibbs has been the Department's authority on foreign competition and demand for American tobacco. Since the establishment of the Combined Food Board in June 1942, his Division in FAR has been responsible for

the assembling of information and research on a number of foreign products, including tea, coffee, cocoa, spices, essential oils, and certain organic chemicals, which are complementary to the U. S. food supply. He has served as chairman and secretary of a number of Combined Food Board committees dealing with tobacco and the noncompetitive products handled by his Division.

Gibbs is a native of Columbia, Mo. He received a B. S. degree in agricultural economics from the University of Missouri and an M. A. in economics and statistics from Columbia University. He entered the Department in November 1925 as junior crop and livestock reporter with headquarters in Louisville, Ky. In September 1926 he became agricultural statistician for West Virginia, and in October 1930 was sent to the Department's Balkan office in Belgrade, Yugoslavia, as assistant agricultural commissioner.

Gibbs's other assignments outside the United States included director of programs of the Agricultural Adjustment Administration in Puerto Rico in 1934 and 1935, and assistant agricultural commissioner and tobacco specialist in the Far East from 1935 to 1939 with headquarters at Shanghai, China, and Calcutta, India. His duties in the embassy at Mexico City are similar to those in the Balkans and the Far East, which, with his other broad experience in the field of agriculture, eminently qualify him for his new post.

Jerry Kluttz says—

JERRY KLUTTZ runs a column in the Washington Post. It is called "The Federal Diary" and deals primarily with Government employees, their gripes, problems, and condition of servitude. Not long since Kluttz spoke at a personnel administration dinner. Some of the things he said may interest you.

For instance, Kluttz thinks that Government agencies and personnel should keep Members of Congress better informed than they do. Employees who are personally acquainted with Congressmen should use every legitimate opportunity to enlighten them about the work of Federal agencies. Most Congressmen are very willing to learn, but we too often make it difficult for them to get the desired information.

Again, Government employees neglect their own public relations. That is why it has been customary to refer to hard workers in Government war agencies as "draft dodgers" while calling men who work in shipyards "patriotic." The fact

that Government workers are often looked at askance is very largely their own fault.

Good employee relations should also be fostered. There is too much tendency for Government workers to talk up themselves and their unit and to imply that others are taxeaters and loafers.

Then, again, too many things are belatedly explained to Government workers in language they cannot understand, which could easily have been made plain and interesting to them from the start. Suppose the explanation of the delayed-pay plan—which is only a Government-wide bookkeeping adjustment—had started out, "Now this isn't going to cost you one red cent," it would have gone over agreeably.

Personnel people, said Kluttz, are often their own worst enemies. They should provide full, clear, easily readable publicity regarding reorganizations, cuts in personnel, and other matters of importance to employees, so worded they could not be misunderstood. That would stop rumors which so often undermine morale and start transfer stampedes.

Kluttz even holds that its personnel workers are in large part to blame because the bad side of Government is painted before the public so much more often than the good side. He insists it is their duty to supply the press with stories of accomplishment which would counteract the ill effects of the deadly smears on Government workers which so easily gain wide publicity.

Brief but important

Leaving us? If so, you should be interested in Budget and Finance Circular No. 796, January 29, concerning lump-sum payments for annual leave upon separation from the service or transfer to agencies with different leave systems. Public Law 525, 78th Congress, approved December 21 last, provides for payment to certain Government employees for accumulated or accrued annual leave due upon their separation or transfer. Apply for a look at this circular through your own agency.

R. Kent Beattie: Mr. Beattie, who retired recently from the Bureau of Plant Industry, Soils, and Agricultural Engineering, joined the staff in 1912, taking charge of chestnut disease work. The Federal Horticultural Board engaged him later to aid it on various problems. In 1927, when he rejoined PISAE, he went to the Orient in search of blight-resistant Asiatic chestnut trees, and many were imported and now grow in this country as a result of his explorations. Returning, he continued work on chestnut blight, laid the foundation for Dutch elm-disease control, directed work on London plane disease and little-leaf of southern pine. He will continue as collaborator in the Division of Forest Pathology, PISAE.

FAR: General Departmental Circular No. 61, February 7, officially defines the functions of the Office of Foreign Agricultural Rela-

tions. Ask for copies through your own agency channels.

Just a Letter: We should like to thank the many who commented so favorably on this lead article in January 22 *USDA*. One enthusiast even suggested that the piece be preserved on parchment and also used in future war bond drives as a change-off from movie-star glamor and other appeals which he regarded as a bit too cheap for this high patriotic purpose.

DDT: By all means read The New Insect Killers, an informative and entertaining article by Gove Hambidge, of the Agricultural Research Administration, in February Harper's Magazine.

Look here, WFA: The editorial entitled "Not So Good" in New England Journal of Medicine, January 11 (p. 56), offers adverse criticism at a high level of professional intelligence. Better look it up.

Try a dish of velva fruit! The new frozen dessert invented by the Western Laboratory of AIC and christened (officially) velva fruit, is now available at soda fountains in some eastern cities. A big metropolitan ice cream company is featuring raspberry and strawberry velva fruit. It is not correct to say strawberry or raspberry *flavored*; velva fruit *is* the fruit, puréed and frozen, with nothing but sugar and a little gelatin added. The texture is like that of ice cream rather than of sherbet or water ice. But why attempt to explain how luscious it is? Now that you can get it at the same price as ice cream, take our advice and treat yourself to some. The information staff of ARA served it at Gove Hambidge's weekly meeting recently in Washington and had enough to spare a dish for Secretary Wickard, who said it put a fine finishing touch on his desk luncheon.

About us: There are 1,173 position titles used in USDA-WFA, but 88 of them cover nearly all the jobs. At present 38 percent of our employees are women, 3 percent are Negroes, and 89 percent of the male employees are 30 years of age or over.

Busy banks: Writing in Barron's for January 8, William Hurd Hillier quotes an Arkansas bank cashier as saying: "We are the general liaison office between the farmer and the outside world. Besides financing his crop, we make out his income tax returns, act as his agent with the rationing office when he needs a new tire, fill in his gasoline forms, get his key workers deferred, fill in his son's draft papers, get birth certificates for the whole family, secure allotments for dependents of service men, write congressmen about pensions, collect insurance for their widows, and help get farm machinery through WPB. We finance 4-H Clubs, have a place to take care of customers' bonds, insurance policies, and Little Nell's first shoe. We do most everything but actually make the crop, and in some instances have done almost that."

Research publications: Writing on Biological Research Strategy and Publication Policy in Science for February 2, Prof. Paul Weiss, University of Chicago, not only suggests stronger editorial control of scientific publication, but says the publication problem cannot be dealt with separately from research itself. He feels that education for research, and the planning, prosecution, financing, and publication of research all constitute one complex. Weiss finally advocated a more explicit and consistent research policy and the formulation and codification of the rules of "scientific research strategy." Look this up.

Blisters: The time had arrived to mix and pour concrete for the abutments on a new bridge over the Deschutes River in Deschutes National Forest, Oreg. But with the wartime manpower shortage, there weren't enough men on hand. So Supervisor Ralph W. Crawford and Administrative Assistant William Naylor left their desks and donned old clothes. With the help of Rangers Stevenson, Tonseth, and Crampton, the Forest Service officers got the concrete work done in a couple of days. A few blisters were the only casualties.

Freeze it! Some people are prejudiced against frozen meat, but according to some of our Bureau of Animal Industry experts, filling it full of fine ice crystals may be an excellent tenderizing process. Meat is generally aged or ripened to tenderize it, by hanging it in a cellar slightly above freezing for several weeks. Aging for 15 days and then freezing at 10° F. seems to be good practice. Beef aged only 5 days and then so frozen is as tender as beef aged 35 days sans freezing.

Breeding: What won't the breeders of livestock and poultry think of next? Now they say they have found a way to develop strains of hens that lay better-keeping eggs. During the last 4 years USDA poultry specialists have observed individual and family differences in the keeping quality of eggs. The shells of eggs laid by some hens are more porous than those of others and eggs having such shells lose more weight in storage. Hens can be bred whose eggs shrink only about half as much in weight as those of other hens. So our scientists have set the example by which poultrymen can improve shell quality through selection of breeding stock, and, bingo!—more better-keeping eggs.

USDA documents: The following mimeographed documents are available for distribution in limited quantities: No. 7, Outstanding Scientific Publications by USDA Research Workers Issued by the Department of Agriculture; and No. 9, Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date—Commissioners of Patents, Superintendents of Agriculture, Commissioners and Secretaries of Agriculture.

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USDA

FOR APRIL 2, 1945

Michigan research

W. LOWELL TREASTOR, Extension editor, and his able assistant, Joe Duncan, made it possible for the editor to assay small samples of excellent research going on at Michigan State College, East Lansing. Vice President Akers, of the Dodge Division, Chrysler Corporation, Detroit, had just inspired a stocktaking of his alma mater's research program which we found most informative.

We talked, among others, to Pres. John A. Hannah, of the college, Dean Ernest L. Anthony, of Agriculture, Extension Director R. J. Baldwin, Experiment Station Director V. R. Gardner, and several scientist-professors engaged in fascinating research. Among these Carl F. Huffman, a bluff he-man bubbling with scintillating ideas, proved especially attractive.

Huffman hit on the notion of depleting cows of important nutritive elements just as rats are depleted in laboratories. As a result, he came upon unknown nutritive factors in young hays which portend much in the future. (Our Bureau of Dairy Industry is working along somewhat similar lines at Beltsville.) Also, he happened to run out of silage at a critical point, and—because of a forced change in the ration of one group of cows—he chanced upon a galactagogue in young hays and grasses which actually overcompensates for what has been regarded as the normal decline in milk yield of a dairy cow towards the end of a lactation period. The total-digestible-nutrient content of the diet is unaltered, but the gain in milk production even after 200 days is phenomenal.

Eccentric bovine diets

Huffman is also studying the micro-organisms and enzymes in the cow's rumen, which play such a large part in synthesizing dietary essentials for bovines. When he fully understands these and learns to feed *them* properly, the nutrition of dairy cattle will make another very real step forward. Huffman and his associates also deal with defi-

ciencies of known minerals and vitamins in the cow's diet, and learn how to cure tongue lollers, cement and wood chawers, hay-ball rollers, and other bovine victims of eccentricity due to dietary deficiency.

Alert Experiment Station Director Gardner, who professed to be lazy, wondered once if he couldn't spray his shrubs at home with something to reduce transpiration and make frequent waterings unnecessary during dry spells. From that came a method of using an oil-wax spray on cherry trees which actually did retard water loss from the leaves, and which, used two or three times over, greatly enlarged the size of the cherries. Had all Michigan cherry trees been so treated that season, growers would have grossed \$75 000 more from their crop, over and above spraying costs.

Michigan's experiment station researchers are also finding antibiotics in garlic and in certain other plants and fruits which are far more powerful than penicillin. Here vistas open in an entirely new field of preventive medicine, rendering scientifically respectable the quackery of ages of plant doctors. The relation of these germ killers in plants and fruits to the prevalence, virulence, and spread of viruses and pathogenic germs will doubtless be of the greatest importance.

Successful weeding with chemicals—taking the stoop labor if not the tears out of onion growing, the development of a new mechanical beet harvester—another notable labor saver, artificial insemination, and many other projects occupy these active Michigan scientists. Director Gardner also fosters extensive voluntary cooperation with the station staffs of nearby States in formulating spray schedules and other programs. He declares that research is a continuous need merely to keep farmers from slipping. Agricultural research workers must progress rapidly merely to keep the farmer from retrogressing in status with respect to others in our competitive industrial system.

Militant soil conserver

MOST EVERYONE who knows him will tell you that H. H. Bennett is a crusader. For something like 33 years, he's been crusading up and down and across America against erosion and on behalf of a protective program of action to conserve the Nation's soil resources. For the first 20 of these years, he carried on a virtual one-man show that improved as it went along and finally got results. Today Hugh Bennett is generally recognized as the founding father of the modern soil conservation movement in the United States.

It's not only at home that his name is known. His land philosophy and the land-treatment measures he advocates have traveled far and wide to distant nations. So has he. Venezuela, the Union of South Africa, Mexico, Canada—a dozen countries, more or less—are now undertaking soil conservation programs patterned in some measure after our own. And Bennett, Chief of the Soil Conservation Service, comes as near as any man to being regarded as an international authority on soil and water conservation.

Better than 6 feet tall and always flirting with the 200-pound mark on the scales, he backs up his land evangelism with boundless energy and with the sound knowledge of a practical scientist, too. He is equally at home at a club-women's luncheon, a crossroads farmers' meeting, a convention of businessmen, or a seminar of scientists. With only minor variations to suit the occasion, he pursues the same theme everywhere and incites all who will listen to rediscover the land, learn to love it, and above all protect it against the erosion process which has already ruined or damaged more than a third of our cropland. He will also tell you how this last is being done now on millions of fields.

One basic principle guides Bennett's work and that of the Service he directs: "The use of each acre according to its individual capabilities and the treatment of each acre according to its individual needs." This principle is now taking root in many another place around the world, as well.

Itinerant soil saver

Bennett was born in 1881 on a farm near Wadesboro, N. C. The exact date he first expressed an interest in the land is not known, but he does recall chopping cotton on his father's farm at the age of 10 and helping him run terrace lines soon afterward. During the half century and more that has passed since,

with time out only for World War I, his interest has never left the land.

He has been Chief of SCS since 1935 and also headed up the earlier Soil Erosion Service. Back in 1909 he served on a committee to study the agricultural possibilities of the Panama Canal Zone. In 1914 he was in charge of an expedition to explore the agricultural regions of Alaska in connection with the building of a railroad. In 1919 he was a member of the Guatemala-Honduras Boundary Commission, and in 1923-24 was the soils man on a commission studying the rubber production possibilities of the Americas. In 1925-26 he was engaged in making a soil reconnaissance survey of Cuba.

That is quite an array of accomplishments for one man and certainly enough to satisfy the average person's conception of a full and useful career in life, but he is still going strong. For instance, with only a Sunday's rest intervening, he was back at his desk in October following 3 months of work in the Union of South Africa and 35,000 miles of travel, mostly by Army bombers.

Bennett's kind of soil conservation has survived and grown stronger each year for 11 years. It now seems on its way to becoming an American habit of caring for soil and water resources and a fixed characteristic of our agriculture. If this occurs it will be the greatest tribute of all to this man who was born on the land and whose interest never left it.—DOROTHY PARKER ROWE, SCS.

Dr. J. W. Joss dies

JESSE WARREN JOSS, of the Bureau of Animal Industry, died February 17 at the age of 65. Dr. Joss received his D. V. S. degree from the Kansas City Veterinary College in 1906 and later in the same year entered the Federal service in the Meat Inspection Division. He served as meat inspector in Kansas and Iowa, and later went to Kansas City to train for virus-serum control work, after which he was sent to Lincoln, Nebr. On February 1, 1918, he was made inspector in charge of virus-serum control work at East St. Louis, Ill. Altogether his period of Federal service extended over 38 years.

Dr. Joss had an unswerving devotion to his official duties, and the character of his service is well expressed in these words of a laboratory director:

"He became much more than merely an official visitor over this period of years; we respected him as a conscientious adviser, and at the same time he was diplomatic. We shall miss his genial personality a great deal."

HNHE

THIS CRYPTIC assemblage of letters and symbols refers to the Bureau of Human Nutrition and Home Economics, Agricultural Research Administration. Its field is pure and applied (very practically applied) research on foods, fabrics, home equipment, and family economics. While some of its scientists tear the proteins apart to see what's inside, others prove that overcooking soya grits and flour deteriorates both their protein and vitamin B₁ content, and then devise better recipes.

Meanwhile others still study varied methods of home food preservation. During the past fiscal year nearly 3½ million copies of the Bureau's home canning instructions were distributed. Then the Bureau's staff, being foresighted, is looking ahead into the home freezing of foods, as well as studying the effect on palatability and nutritive values of different methods of processing and packaging foods. It considers the storage and ultimate food value of dehydrated beef, pork, eggs, soup mixes, and vegetables.

It works out, popularizes, and publicizes special wartime receipts to match our food supplies. It studies trends in national diet. It finds, for instance, that our civilian food supply in 1943 provided us per capita with more of every nutrient than did that of 1935-39. Increased incomes, better marketing methods, widespread nutrition education, markedly improved our food consumption patterns between 1936 and 1942.

Yet a large proportion of our families is still unaware of the newer knowledge of nutrition. Periodic study of our diet habits must be continuous. Research findings must be popularized in such simple terms and arresting ways that all will read and heed—and this Bureau does a magnificent job of such popularization.

On the home front

The Bureau also finds that farm families spend about as much as do city families for medical care, when money incomes are the same. But most farm families have lower incomes—one reason why they have not had as good medical care as their city cousins. From the Bureau's analyses of family spending for medical care comes guidance for agencies making post-war plans to improve rural health facilities.

Then there's the job of developing original functional designs for women's clothes, the taking of measurements for scientific sizing of ready-made clothing—shoes are next to be tackled—and, at the direct request of Congress,

women's cotton hose have been glamorized and glorified as a result of serious research on fashioning, weaving, cotton fibers from different varieties of cotton, wearing qualities, and so on.

Next we come to microbe control in fabrics, better methods of sterilization, making fabrics resistant to mildew and (in cooperation with the Bureau of Entomology and Plant Quarantine) to insect damage, cooperative fur studies with the Bureau of Animal Industry and Interior's Fish and Wildlife Service. Last but not least, there are the home-front information programs on nutrition, food conservation, and the use of temporary food abundances, wherein the Bureau cooperates manfully (even if it is mainly staffed by the "opposite sex") with OWI.

Extension conferences

BEGINNING IN 1943, Director M. L. Wilson has held quarterly conferences of the entire staff of the Federal Extension Service. The problem of keeping everyone in Extension informed about new policies and programs, abreast of what's going on in the States, and familiar with the background of specific programs and their relation to the whole agricultural program, and of insuring cooperative, concerted, and intelligent action along the farm front, requires constant attention.

The theme for the 1945 quarterly conferences is "extension work in the war, transition, and post-war periods." Director Wilson opened the first conference with a review of plans for the year, followed by discussions of recommendations made at key conferences of State and Federal extension workers and ways and means of meeting the 1945 production goals. On the second day, the group visited the Washington laboratories of the Bureaus of Animal Industry and of Dairy Industry. The next three days were given over to the USDA Extension Institute at which national leaders of farm, business, labor, religious, educational, and welfare groups outlined their post-war plans and proposals for the benefit of Extension and personnel of other USDA agencies.

Previously M. L. Wilson and his staff had spent a day at Beltsville, where they learned about the latest developments in the Bureaus of Plant Industry, Soils, and Agricultural Engineering and of Entomology and Plant Quarantine. In a letter to State Extension directors, reporting on a trip to Beltsville, Director Wilson said, "Wartime research is making tremendous strides. Wartime extension work should begin now to shape and

adapt its programs and plans for the tremendous job of reconversion in agriculture under a technology that will be revolutionary in many respects." These quarterly conferences are helping the Federal Extension staff translate the results of the Department's programs and activities for everyday use on the farm and in the farm home.

Farming on salary

OUT AT Hershey, Pa., the other day, we found a type of farming new to us. The farmers were paid flat salaries, they lived in modern well-built houses, and their food was sent to them and their families from a central kitchen—already cooked! Possibly many a beleaguered and disenchanting farm woman would regard this as farming de luxe. But, as the man said, it has its disadvantages and its advantages.

The head of the Hershey chocolate concern, now 87 but still very active, is also a philanthropist. On some 10,000-odd acres of land he not only has his huge plant, but some 75 finely equipped and stocked farms, and an industrial school for worthy orphan boys. While the school normally has a thousand or more in attendance, this has dropped to about 700 during wartime. The boys take vocational courses, including agriculture, and work in their leisure time on the farms.

There are two kinds of farms—"units" and just farms. A unit will have operating it, and resident there, a master farmer and his wife, an assistant farmer and his wife, and about 18 of the boys. The farmers are paid to operate the farms under three supervisors, who in turn are responsible to the over-all farm superintendent. Their wives are paid to act as house mothers to the boys. Both get salaries.

These salaries are practically all velvet, for the farmer and his family are provided a nice home, good food, medical attention, and other necessities except clothes. Most of the projects are dairy farms, but hogs, wheat, corn, oats, vegetables, and other crops are also raised. The effort is to produce the food and feed requirements of the entire Hershey set-up.

A drop in the bucket

You might think offhand that sufficient milk would be produced to make all those chocolate bars, but the farm production is a mere drop in the bucket. Farmers get their own breakfasts, and in doing so may use produce from their

own farms, for which they account in a businesslike way.

All head farmers get the same salaries, and so do the assistant farmers, regardless of the economic success of their enterprise. Some of the projects are in the red but most are in the black, and as a whole the farming venture is profitable.

How do the farmers like this unique pattern of farming? They like running individual farms better than they do working on "units." On the units they and their families have to get along with the other farmers and their families. There is also the psychological problem of mothering 18 of the industrial-school students. On the farms a man and his wife run the place quite as they would if they owned it—except they get a salary.

Turn-over is fairly high among those who work on units, much less high among those working on farms. The experiment does show that good farming can be done on a straight salary, though—as the man said who explained it to your editor—such farming has disadvantages. There are many farmers who would prefer a less fine and well-equipped home, with no cooked luncheons and dinners sent in from an excellent central kitchen—just to be on their own.

County Agent A. S. Frommeyer took us out to Hershey from Harrisburg. For your information, you can no more get Hershey bars there than anywhere else.

USDA Placement Program

PERSONNEL CIRCULAR 147 provides for establishment of a Placement Program for promotion, reassignment, and transfer of employees within the Department.

Under the program, the Bureaus will be encouraged to set up systems of internal placement. The Office of Personnel will establish, for use of the Bureaus, central lists of employees eligible for various types of jobs, and will help each Bureau to get eligible employees from within the Department. Announcements will be issued for types of jobs for which lists are to be maintained, so that any of us can apply for consideration. The Bureaus will pass on the qualifications of employees who apply and others who are eligible for consideration, and will submit names for the lists. Then Personnel will refer the best qualified employees for consideration by the Bureaus in filling vacancies.

To start, Personnel has chosen these types of positions for which central lists will be set up: Personnel officers and technicians, CAF-7 through CAF-13;

and fiscal officers and technicians (all phases of budget, accounting, and audit), CAF-7 through CAF-13. From time to time, other types of jobs will be included.

If you want more details on this Placement Program, consult the personnel officer in your Bureau.

Administrator for results

PISAE—developer of disease-resistant, drought-resistant, cold-resistant, and insect-resistant plants—boasts also of a business manager highly resistant to the administration for its own sake disease.

Says Henry E. Allanson, head of the Bureau's Division of Administration: "It is our purpose to assist in effectively producing results, but we do not say it frequently enough. All too often our emphasis is on how we do it, until it appears almost an end in itself. After all, those of us in administrative work have as our real responsibility the effective accomplishment of the ultimate purposes for which appropriations are made."

Cribbed unbeknownst to Allanson from a stray carbon of a recent memorandum, these words epitomize a facilitating philosophy that affects the entire work of the Bureau and has done so for more than 20 years, according to the business manager's long-time colleagues. And many of them say this is partly because Allanson is a plantsman himself at heart.

And thereby hangs a tale.

"I doubt," recently wrote John A. Ferrall, Bureau veteran and ace USDA reporter, "if any man ever wanted less an administrative job than Henry E. Allanson at the time Dr. William A. Taylor picked him. A graduate of Cornell and trained for research—that was the future that Mr. Allanson had in mind for himself, research in agriculture. But he had made a reputation as an administrative officer even while in college, so when he entered the service of the Department he was drafted for special administrative work in the Office of the Secretary—and research moved aside for the time being.

"When World War I jammed Dr. Taylor's desk with administrative details," Ferrall continues, "it was Henry Allanson who was called in to clear the jam. Later he went to V. P. I. for a while. He returned in 1921, to the Bureau's Foreign Plant Exploration, and Dr. Taylor again spotted him. That was the end. The draft was on, and the Bureau had acquired an 'until death do us part' business manager, I suspect, with the research job put aside for the next reincarnation."—HOWARD ZAHNISER, PISAE.

Annand of EPQ

HOW DID it happen that, when the Army and Navy needed it in this war, the Department had ready for use the now world-famous aerosol "bomb"? How could a research bureau develop so rapidly marvelous louse powders, unique mosquito killers and repellents, and the many new pest control devices needed to protect our armed forces against the dread diseases that in past wars have killed more men than battles—against malaria, typhus, typhoid, and dysentery? How were such practical devices produced in time to meet such sudden wartime emergencies?

When we put these questions to Dr. P. N. Annand, Chief of the Bureau of Entomology and Plant Quarantine, he told us: "Our people are used to meeting sudden emergencies. Fighting pests is a year-in-year-out struggle, worse in some years than others, but always requiring new practical methods and 'know how' for control of pests and plant diseases. When the war broke, our staff had had plenty of experience in meeting a wide variety of pest and plant disease emergencies. They were trained and ready to meet wartime demands, though of course we did have to change the emphasis of our work. Besides, one of the collateral values of scientific research is to prepare us for just such emergencies by providing the practical and usable information that we need when they arise." Dr. Annand characteristically praised his staff and gave them the credit for this achievement.

But we asked these same questions of members of his staff. They said the answer lies also in Dr. Annand. They point out first that he had had "plenty of experience" himself in campaigns against emergencies.

Man meets emergencies

The first occurred in the late 20's, when beet leafhoppers, by transmitting disease, were ruining crops for sugar-beet and tomato growers in California and the Intermountain region. Dr. Annand was called away from an academic career to help solve that one. Later, when grasshoppers began to plague grain-growing States, eventually causing crop losses of over 100 million dollars in a single year (1936), we find him heading up a division which directed large-scale emergency work against these pests. After meeting this and many lesser emergencies, he moved up to coordinate research in the office of the Chief of the Bureau.

In 1941, on the death of Dr. Lee A. Strong, who was the first to head the

combined Bureaus of Entomology and Plant Quarantine, Dr. Annand became Chief. This makes quite a record for ARA bureaus, say his associates—from new field employee to Bureau Chief in 12 years, at the age of 43! One big reason the Bureau was able to meet war emergencies was that it had a comparatively young and vigorous Chief when war came, a man who had had the varied and wide administrative experience required for solving practical pest control problems in wartime.

Another reason is the man himself. Blue-eyed and strong-jawed, Dr. Annand, when you first meet him, gives the total effect of a forceful and determined, yet pleasant, personality. Born in Telluride, Colo., in 1898, and a graduate of Colorado Agricultural College, he has a Ph. D. from Leland Stanford (1928) and was for several years a college professor, head of biology at San Mateo Junior College in California.

Dr. Annand is at heart a westerner. When questioned on it, he confessed an inner yearning for the "mountain country" and for the active life of the wide open spaces—particularly, he said smiling, as he walked with us to the door, when USDA writers come around asking personal questions!—WILLIAM A. D. MILLSON, EPQ.

Master sample

WHEN THE DOCTOR tests your blood, he doesn't drain all the blood out of you into a bucket. He takes a sample. When you want a chemist to analyze the water in your well, you don't take him all the water there is in it. You take him a sample. When public opinion polls are taken, every individual of the population isn't interviewed. A sampling is made, representative of the entire population. The people in this sample are interviewed or queried and the results apply pretty well to all citizens.

The Bureau of Agricultural Economics has to make use of sampling techniques in getting statistical information about acreages, prices, manpower, and numerous other farm problems. It also obtains information from a number of farmers in a sample so selected as to be truly representative of all farmers. That means that such things as income levels, types of farming, and sizes of farms must all be taken into consideration, for the sample should contain the same percentage of farmers of each kind as the totality or "universe" (statistician's jargon) it is to represent.

BAE started work in 1943 on what it calls a "master sample." Later the Bu-

reau of the Census became interested and desired to cooperate. Technical operations and the drawing of the sample have been concentrated at the Statistical Laboratory of Iowa State College. Here interested technicians of BAE, the Census, and Iowa State work together to perfect the master sample. When the technique is fully developed, it will facilitate the gathering of more accurate statistical information at relatively low cost.

The master sample involves 300,000 farms and is divided into 3 subsamples, each representing approximately 100,000 farms. The master sample also provides maps, photographs, other materials, and services for other samples, no matter how small or large. It brings together in useful form all the materials essential for designing efficient samples. The sample of 300,000 farms is a small replica of all farms in the U.S. The sample may be used separately or combined to provide cross-sections of American farms as needed.

The master sample has already been used successfully in a number of surveys. It can be used in all sorts of ways to find out what is going on in all our agricultural counties, to set up small samples in specified sample counties, or to check up on farm wage rates, farm facilities, Victory Gardens, and dozens of other programs. Devising the master sample involves research of a high order in the field of the social sciences.

Aside to calorie fiends

NOW WHICH of you girls is most worried about getting fat? Did you know that one good-sized apple gives you as many calories as one fair-sized potato? Did you know that a cup of milk provides as much energy as a generous pat of butter? Did you know that one thick slice or two thin slices of bread are as fattening as a medium potato?

Scientifically, a calorie is the amount of heat required to raise the temperature of about 1 pound or pint of water 4° F. Nutritionists use calories to measure the energy in foods. Foods full of calories tend to fatten unless consumed with discretion.

Always remember that *the average-sized man uses only about 100 calories an hour when sitting still*. If the man lived in an easy chair, he would need only about 2,000 calories a day, but 8 hours of use of his large muscles would double his daily requirement. *A moderately active woman needs about 2,500 and a very active one 3,000 calories a day*. A pound of butter gives you 3,325

calories, a pound of dried apricots 1,325, a pound of dried beans 1,590, a pound of Cheddar-type cheese 1,785, and a pound of pork chops, 1,060. Remember this vaguely when eating.

A tendency to obesity may run in the family. It is possible, too, that your glands have something to do with your getting fat. But Dr. Henry C. Sherman, formerly Chief of the Bureau of Human Nutrition and Home Economics, says: "It is also true that too much fat in the body must inevitably mean that there has been too high a food-calorie intake for that person's rate of energy. Conversely, an undue thinness means that food calorie intake has been unduly low."

To prevent obesity, you can either count calories or watch your body weight. In any case, eat just as liberally as you can while maintaining the desired body weight. Generally speaking, the average weight for a given height tends to increase till middle age, and the most advantageous degree of fatness is that which corresponds to the average at age 30—i. e., say around 125 pounds for a woman 5 feet 2 or 3 inches tall. Below 30 pounds generally tend to be underweight and should try to build themselves up. As we enter middle age, however, our problem is a tendency to overweight.

Our Solicitor

A BOSS who carries the responsibility for interpretation of all the laws and regulations under which USDA-WFA operate, who finds time for leadership in numerous outside activities both in his profession and in other fields, and who still takes an active interest in the many employee activities of his organization—that's the picture that members of the Office of the Solicitor have of Robert H. Shields, Solicitor of USDA-WFA.

Bob Shields has a knowledge of agricultural legislation and administration of farm programs which is probably unequalled anywhere. This knowledge has been gained through actual participation in framing and interpreting most of the agricultural legislation of the last dozen years. He entered the Department as an attorney in 1933 on Agricultural Adjustment Agency programs, after four years of private law practice in New York, following his graduation from Harvard in 1929.

Born in Wymore, Nebr., in 1905, the present Solicitor grew up in a small town, worked on farms in summers, and clerked in stores before going to the University of Nebraska from which he graduated in 1926. After working in the Solicitor's Office from 1933 until June

1941, he served for nearly a year as Assistant to Secretary Wickard and quasi-judicial officer of the Department, in which capacity he had charge of the many hearings that are held on the numerous regulatory acts for which the Department is responsible. In 1942 Secretary Wickard named him to be Solicitor to succeed Mastin G. White.

Energetic in work or play

As Solicitor, Bob Shields has demonstrated skill in administration, as evidenced by a complete and effective reorganization of the Solicitor's forces both in Washington and in the field. Personnel of the Solicitor's Office totals 539, of whom 241 are lawyers. This represents a 35 percent decline since July 1941, but the Office is still able to perform its wartime functions.

Despite his heavy administrative job, Bob Shields finds time for outside interests. His article on price supports was published in the Chicago Law Review, and his article on maximum prices has appeared in the Michigan Law Review. He is president of the Group Health Association of Washington and vice president of the Federal Bar Association. He is interested in the many activities of his employees and takes an active part in their organized recreation. As a faithful member of the Solicitor's Office bowling league, he bowls around 100. He likes to dance and has a reputation of being able to dance the rest of the members of the organization off their feet. He is an ardent bridge player. With all these activities he still finds time to build a tinker-toy lawn mower for his three children and to putter around the house and yard, painting the bathroom and maintaining a Victory Garden.

His associates say that Bob Shields has suffered one administrative setback. When he became Solicitor, he established tri-weekly staff meetings, beginning at 8:45 a. m. He made them on time, but many of his coworkers were there in spirit only. Then he tried holding them at ten to nine but some of the congregation still couldn't make it in the flesh. Finally he gave up and now starts his meetings at 9:00 a. m.—without empty pews!

Attention, personnel officers: The alert and intelligent personnel and administrative officer (as if there could be any other kind), who has to take into consideration the health of employees, will find much of interest in leafing through, if not actually reading all of, *Psychosomatic Diagnosis*, by Flanders Dunbar, M. D. This book discusses the scientific interrelationship of mind and body in disease. In short, it helps answer the question: Is this person sick or does he (she) merely think so?

"We"

SAID A Chicago businessman recently: "Listen carefully for the new employee to say 'we.' If he does this voluntarily and spontaneously within a week after he was hired, he feels that he belongs to the institution and that it is part of him. He will be worth watching. He will inevitably succeed."

Which reminds us about talking jobs with an Australian woman recently. We said that her attitude was typically British, and that British workers, as distinguished from American, tend to be not so much more industrious, as more conscientious and more willing to assume responsibility. She said no, that wasn't exactly it. She felt that British and Australian workers rather felt themselves to be an integral part of the institution or concern for which they worked, while to Americans the institution or concern was merely a place to which you went daily to earn enough to live your life outside.

Then she went on: "When I first went to work for my present employer (it was a small firm) he seemed inconsiderate of his employees and insensitive to their well-being. Each evening one of us had to work late. Then the next morning that worker didn't have to report till noon. But the first two times it was my turn to work late I appeared at 9 a. m. the next day as usual.

"I did this because there was lots of work to do, I wasn't tired, I liked my job, and I had nothing else that seemed more important. I assure you I had no ulterior motive. But the third time it was my turn to work late the boss utterly astounded me by saying: 'And tomorrow, if you come in here before noon, I'll tear you apart. Stay home and rest!'

"In other words, this inconsiderate boss was being considerate of me simply because I felt myself a part of his small organization and did not take two mornings off because I personally preferred to work. Possibly if selfish or self-seeking workers adopted this seemingly unselfish attitude—really it wasn't—they'd get more consideration than in any other way."

This woman had been with the little firm three weeks then, but she always said "we" when she spoke about it. Come to think of it, employees who quickly begin to say "we" are adept at teamwork and are usually industrious, conscientious, and intelligent. They work for their own good by working for the good of the institution. The Chicago businessman's test is a pretty good one at that—even in "our" USDA.

Pass the mustard

AMONG ITS unique endowments—in addition to movie stars and esoteric cults—southern California has some of the most inflammable forests in the United States. When fire starts in these chaparral forests, it burns almost everything down to the ground. No debris or leaf is left—only a few stumps and occasional sticks. This gives rise to a tremendous erosion problem.

The steep southern California mountains are composed of very old granitic rock. Age has eliminated the binding material, and the rock readily breaks up into granitic sand or gravel. Consequently, when bare mountain soil, after a fire, is subjected to a rainstorm, the force of erosion is terrific. Under such conditions, southern California has the highest erosion rate in the United States. When floods come and the eroded material is washed out of the steep, short canyons, great damage is done to the rich agricultural lands and to the communities below.

Scientists have long pondered the problem of how to put a cover quickly on these burned-over forests, because when vegetation covers the ground the rain can enter the soil and protect it against cutting action of water running over the surface. After testing nearly 100 different species of plants, the Forest Service found one that fills the bill—common black mustard.

Mustard is suitable for many reasons. The seed is available in commercial quantities (remember, we are a Nation of mustard-soaked hot-dog eaters). It is very light—275,000 make a pound—and can be sown from an airplane at a rate of 10,000 acres a week. The seed has no wings, so is not blown over long distances.

Mustard plasters

Most important of all, mustard seeds germinate promptly on even slightly moist ground and send roots down which bind the surface soil, while the primary leaves lie flat on the ground to form a rosette. This rosette stops the impact of rain against the soil as nature intended, without rapid run-off. Temperature and rainfall permitting, the plants are waist high in a few weeks.

A field of blooming mustard with its yellow flowers is an inspiring sight. Being an annual, mustard also helps protect the soil by forming a litter of dead material which quickly becomes humus. Thus the burned-over scars are healed, and after the third or fourth year the shy and retiring plant succumbs easily

to aggressive competitors—and the natural chaparral vegetation takes its place. All is well until fire ravages the area, and the cycle must be renewed.

When FS went in for mustard sowing in a big way a few years ago, following a great fire near Santa Barbara, it virtually cornered the market of available seed. Since then its demands have been more modest, and seed producers—mainly in Idaho and Montana—have been able to meet our hot-dog requirements.

The 1944 Flood Control Act provides \$100,000 for emergency work on watersheds whose natural cover has suddenly been destroyed. This opens the way for a program of quick mustard sowing should fire again ravage the southern California mountain slopes.—ANTHONY NETBOY, FS.

Kitchen of OMS

IN AND OUT of reorganizations, Clarence W. Kitchen has remained a market man's market man. He started next to the bottom as a clerk-stenographer in Forest Service. But timber was just a wedge into the Government service. His only and enduring love has been marketing research, service, and regulatory work. He became a marketing specialist in the Bureau of Markets in 1915—the beginning of a marketing career that becomes more established with tenure. As far as the market people are concerned, Kitchen is their man.

Near where the National Gallery of Art in Washington now stands, once stood old "Center Market," supervised by Kitchen from the time the Government took over its management in 1922. Two years later when the market was pulled down to make room for culture, it was Clarence Kitchen who made a market study—the first of its kind in the country—that led to the development of the Southwest Market (down by the wharf) and Union Market. From 1923 to 1927 he was business manager of the Bureau of Agricultural Economics and from 1927 to 1939 he was its Assistant Chief in charge of marketing services and regulatory work.

When BAE was reorganized in 1939, the marketing work was siphoned off and established in the newly created Agricultural Marketing Service with Kitchen in charge. In addition, he was appointed director of the Federal Crop Insurance Corporation.

AMS operated thus only 3 years before it shuffled letters with the SMA (Surplus Marketing Administration) to become the AMA (Agricultural Marketing Ad-

ministration) with Kitchen as Associate Administrator. AMA returned the Division of Agricultural Statistics to BAE, and added unto itself several marketing and regulatory functions: Commodity Exchange Act, Sugar Act, marketing agreement work, Meat Inspection Act, administration of the 28-hour law, work on freight rates, and others.

Through AMA to Food Distribution Administration to Office of Distribution to the current Office of Marketing Services, Kitchen has been the top man of marketing services and regulatory work. The latest shuffle puts him at the wheel of OMS.

A dependable man

Growing up with his agency, identifying himself with market work throughout administrative changes, Kitchen has developed an uncanny knowledge of what goes on in the market world. Not only does he have the respect of the market folks—but also of Congress. For Kitchen is a practical guy, and Congress goes for that. He's not one for throwing the people's money around. So it's not surprising that his advice is a budgetary must.

His only weakness (it probably bothers his wife more than anyone else) is that he drives himself too hard. He eschews the "Eat a Lunch That Packs a Punch" and lunches on a glass of milk at his desk, works until 6 p. m. all of the nights, and then carries home work in his pockets.

But that's what makes him the sort of fellow he is. If there's something you're not quite sure of, you go to Kitch. He usually knows for sure. Conservative in mien and demeanor, he manages to be as inconspicuous as possible and prefers to polish things off without pomp.

All added up, he's a square shooter, on the quiet side, a hard worker, an archives of marketing facts, not much on fiction if any, and a whiz at budgeting and spending wisely. In short, he is the type of bureaucrat that everybody respects.—SOPHIA PODOLSKY, WFA.

Life begins at seventy!

THE NEXT TIME a friend, approaching retirement age, bewails the supposed fact that his future is behind him, his productive days at an end, do not remind him that Edison was doing highly important work at 84 and Fabre was conducting his famous natural history studies when past 90. Tell him, instead, the story of the late Gulian P. Rixford.

Rixford joined the scientific staff of the Bureau of Plant Industry in 1908, being

placed in charge of certain field investigations on the Pacific Coast, including those on Smyrna figs. He was then past 70. Yes, that's correct. Appointments of that sort could be made in 1908, and Rixford happened to be the best qualified man available for this particular job. When the appointing officer examined the papers, he discovered that this man, whose chief qualification was supposed to be his knowledge of Pacific Coast horticultural matters, was actually not a botanist or horticulturist at all, but a civil engineer—and from Canada!

Rixford graduated from McGill University and worked as a civil engineer until he was 30. Then, deciding on a change, he dropped engineering, went to San Francisco, and became a newspaper reporter. "Covering the waterfront," his interest was soon aroused in the wide variety of fruits and vegetables from all over the world that he observed coming to the San Francisco markets. From then on, horticulture was his hobby. When he moved up to the position of business manager of the San Francisco Bulletin, he offered—instead of the usual trinkets—rare seeds and plants as premiums for subscriptions. In this way he brought to this country many useful plants, among them the Smyrna fig.

For more than 20 years he proved a tower of strength on the Bureau's scientific staff. That's correct, too. Twenty years—and then some! He was actively at work and was awarded the Meyer medal for distinguished service in the field of foreign plant introduction shortly after his ninety-second birthday. He frequently claimed that his really important work in life did not start until he was past 70. He expected to remain in harness until 100, and might have done so had not a railroad accident caused his death sometime before his ninety-third birthday. Men who accompanied him on strenuous field trips when he was past 90 will testify that he then showed no indications of an early natural death!—JOHN A. FERRALL, PISAE.

Read speeches? Absolutely no, says Dr. M. C. Merrill, Chief of Information's Division of Publications, no and that's that. Then A. J. G. Illian, of the Commodity Exchange Division, WFA, in New York, writes us as follows: "At the risk of being considered old-fashioned, may I state my preference concerning extemporaneous speakers and reading from written manuscripts. It is the extemporaneous speaker by far! The extemporaneous speaker can digress when occasions for so doing arise and so make his address more interesting. Reading from a written manuscript keeps the speaker busy finding his place and turning pages; he may get lost in digressing. The audience is fascinated by the pile of growing pages and wonders how many are left. The constant looking at the audience and shifting to the written page detracts from the audience's attention and the speaker loses thereby."

Feeding Facilities Manual

SOME TIME BACK a lot of plans for industrial feeding lay-outs came into the Industrial Feeding Division, Office of Supply, CCC. They were good plans as plans go, but they did not answer the immediate mass-feeding problem where speed of preparation and of service is essential.

So Erwin Adelberger, Ivon Blackman, and Ruth Lusby initiated a careful study to determine why the plans did not solve industrial feeding problems. From this study emerged a Feeding Facilities Manual in 12 parts, intended to provide a yardstick for facilities and equipment. This series of standards was not meant to be copied *in toto*, but was drafted to serve as a Baedeker for anyone in quest of an economical, fast, functional set-up for industrial feeding.

The first to recognize the merit of the Manual was the equipment industry—also first to doubt the advisability of such a project. The Food Service Equipment Bulletin, mouthpiece of the equipment dealers, records the new Manual as a "work * * * well done. We are not in accord with all that is suggested but we know that this work has had much time and careful consideration." Which is certainly a bit more than faint praise!

Institutions, the mass-feeding magazine, stopped its January presses to spread the new Manual on its pages, replete with headlines, "pix," and samples of detailed kitchen plans.

From across the sea comes a request for 12 copies for the use of the technical assistants who are expediting England's industrial feeding program in the same capacity as our own industrial feeding specialists. "Your famous brochure has reached the ears of England," is the way the Empire Tea Bureau prefaces its request. Incidentally, the difference between the British and American in-plant feeding program is that the British are required by law to provide canteens in all factories employing more than 250 workers.

From Canada, from Australia, from the Latin-American countries—even from China—come requests for the Manual. They come also from engineers, life insurance companies, newspapers, colleges, libraries, hotels, and restaurants. They seek an adequate plan for big-scale on-the-job meals—midshift instead of makeshift meals for the men and women in industry.—SOPHIA PODOLSKY, WFA.

Brief but important

Veterans and farms: Some readers might care to apply to the USDA Office of Information for a summary of a study entitled "Soldiers' Plans for Farming After They Leave the Army," made by the Information and Education Division of the Army Service Forces. It summarizes findings after a survey of officers and enlisted men to discover their farm plans, if any. It discusses such topics as plans for farming as related to farming experience, types of farming, plans for obtaining a farm, availability of family farms, plans to operate a farm, interest in new farm lands, and plans of Negro enlisted men, and has appendices and tables.

Committee on deferment: General Departmental Circular No. 62, February 10, on selective training and service, announces the appointment of a Committee on Deferment of Government Employees for USDA. S. B. Herrell, Office of Personnel, is chairman.

From a serviceman: John E. Visher, Office of the Secretary employee now in the Army, writes the editor: "USDA is one of the finest house organs that I have seen. Every issue that I have read has been both interesting and informative. * * * Your fine publication is both a delight and a pleasure to read even far from the home front. The whole tone and editorial style of the publication is refreshing—and especially so, I believe, to one who has been away from the Department for some time."

Index to USDA Vol. III: This is now available. Write or phone the editors of USDA.

Our Department Scientists: This is the title of No. 10 of the USDA mimeographed documents; available from the editors of USDA.

Dehydrated vegetables: Tests made at the western lab of the Bureau of Agricultural and Industrial Chemistry show that dehydrated vegetables keep better if their moisture content decreases. Present-day dehydrated vegetables may deteriorate in storage, especially over long periods at high temperatures. Of methods now developed for lowering the moisture content, the most promising is use of a desiccant—drying agent to you—in the package. L. B. Howard, of the lab, says a package of desiccant put in a can with dehydrated vegetables and kept under seal will remove moisture during storage and transportation. Studies along this line are continuing.

Insecticide Division changes: Dr. Curtis C. McDonnell retired March 1 as chief of this division in the Livestock and Meats Branch, Office of Marketing Services. Dr. McDonnell came to the Department as an assistant chemist in the old Bureau of Chemistry in 1907, and had been head of the division since 1928. Dr. W. G. Reed, who succeeds Dr. McDonnell, joined the Department in 1929, and since 1931 has been in the meat inspection service.

Secretary Wickard a grandfather: Mr. Wickard's first grandchild, a boy, was born February 24, to this daughter Ann. She is the wife of Lt. Jean V. Pickart, U. S. N., and lives in Maywood, Ill.

Best: Under date of February 23 Ladd Haystead, agricultural editor of and writer for *Fortune*, says our February 19 issue "of the world's greatest little magazine is exceptionally interesting. I am going to lift the brief flash on those Beltsville Small Whites which I should have taken care of long ago." (See *Turkey*, page 3 that issue.)

Pictures: "One picture equals 10,000 words." This statement is usually attributed to a sage Chinese. The Reader's Digest seems to have proved the contrary. We seem to have done so in *USDA* even more pointedly. For we withdrew all illustrations and all enticing typographical devices, and simply tried to render the publication popular by making it readable. This can be done, no matter how visual educational specialists shudder. Possibly Americans are not so illiterate as some imagine who insist they will "read" on pictures. Possibly the texts given them to read lack interest and importance, or both.

Bureaucracy: A friend in an agency regional office in St. Louis recently told us how a magazine near his agency's office in Milwaukee had just spent \$100 in travel, wires, telephone messages, and airmail specials to get a story from him which they could have gotten without that expense right in the city where the periodical appeared! He went on to remark that private bureaucrats were much worse than the Government breed in this matter of spending cash unnecessarily for travel and communications. Which reminds us that you could do lots worse than read the article, *Do We Need More Bureaucrats?* leading off March Magazine Digest. It's by a Government worker, too—Harold L. Ickes.

Champion farmer helped by FSA: The 1944 winner of the sweepstakes prize in the Plant to Prosper contest, held annually by the Memphis Commercial Appeal for farm owners and tenants in 5 mid-southern States, is Connie B. Roberts, of Monroe County, Miss. Back in the spring of 1940, Roberts, who for 12 years had been a tenant or sharecropper, borrowed \$4,000, under the Farm Security Administration's tenant-purchase program, to buy a farm and build a new house and barn. FSA advised Roberts to put the cash income from his cotton crop into paying off the loan and to make the living for his family—wife and 6 children—from a garden, chickens, livestock, and feed. He did so—and now, less than 5 years later, he has repaid the FSA loan in full, and the family has put \$1,500 into war bonds. Roberts also is serving a third term as AAA committeeman.

Reemployment of veterans: Departmental Circular 53, on the reemployment of veterans, recently brought these lines from a Budget and Finance employee now in the South Pacific: "Circular 53 establishes some very generous policies toward the reemployment of service men. * * * I think most of the boys will gladly settle for their jobs and feel they are lucky to get them back. Of course many service men do not plan to return to their previous lines of work. * * * In some cases the job previously held by the service man has been efficiently performed by someone else during his absence. From the standpoint of the organization it would probably be more convenient to continue on that basis. Most service men realize this and, although they may have a legal right to the job, I think very few of them want to hold a job because they have a legal right to it. Circular 53 seems to go further than just legal rights which makes it appear that USDA is again demonstrating that honesty of policy which has been its trademark down through the years and makes it probably the least criticized of all Government Departments."

2,000 homes gone: That sounds like war news of the worst kind. Actually you can chalk the destruction up against the bark beetle which does more damage to certain kinds of forests than do forest fires. At present the busy beetles are devastating Engelmann spruce forests of the Central Rocky Mountain Region. During the last 2 years they have killed more than 250 million board feet of high-value spruce timber. That would be enough lumber to build 2,000 homes of average size. So reports the Bureau of Entomology and Plant Quarantine.

Stenographers and dictation: Our articles on dictation and our discussions of stenographers have brought forth many interesting letters. All will be given due consideration by the Office of Personnel, rest assured. Most are too long for us to use in *USDA*. One of the best, from which we should like to quote, runs over five pages but is, unfortunately, anonymous, hence we cannot make use of it in these columns. It was merely signed "Jane!" Donald E. Taft, of the Allegheny National Forest, roughs out his letters in pencil and advocates this method; he believes that able stenographers are soon recognized and can advance rapidly in Civil Service.

Retrospective notation: When we entered the Department of Agriculture in 1910 one watchman used to sit at the front and another at the back door of the building and take down the names of all who were tardy or who left early. This list went to the bureau time clerk. Later you signed up for this leave, or else. Also, when the Chief got on the elevator it snapped directly up to his floor without stop, and no one could get on with him except visitors accompanying him. Those already on had to get off and await the return trip. Democracy?

Letters to the front: A distant relative of the editor's, a kid who entered the army nearly a decade ago as a private and is by now a first lieutenant in France, said recently in a letter: "Despite our mutterings the Army Post Office is doing a herculean job; seldom do they lose a letter. I don't know what this Army of ours would do without mail. There never has been such a mass outbreak of nostalgia as exists in our forces today. They all want to go home—sleep it, eat it, dream it, and pray for it. The mail, the only connecting link with home, is the safety valve that holds them in check. The efficiency of a man depends upon the outcome of mail delivery. If the mothers and fathers, sisters, and sweethearts could realize this, and insure their loved ones a letter a day, the result would be better soldiers and less embittered boys when demobilization comes along."

Service people in hospitals: Personnel Director Reid, in Memo P-506, issued February 23, suggests that Department employees might render a friendly and patriotic service by calling on former employees or employees' close relatives in the armed forces, who are in hospitals in this country and not near their homes or former offices. To launch this service, heads of Department offices near such hospitals are asked to send the name and address of the office and of the hospital to Henry F. Shepherd, Chief, Division of Personnel Relations and Safety, Office of Personnel. Requests for this service also should go to Mr. Shepherd, including the following information (two copies, please): Name of person hospitalized; serial number or other identification; name and location of hospital; relationship to Department; any statement that might aid in establishing the contact; and name and address of person making the request.

Chicken sense: The following is taken from a British medical journal, *The Lancet*: "For instance, if you want to move your hen-house 6 feet to the left or right, it's no good just moving it that distance. The hens simply won't cooperate. It takes longer than ever to get them to go to bed, because the poor mutts insist on roosting in the open on the old site. No, the thing to do is move the henhouse 400 yards away. The hens reorientate themselves much more quickly; and when you have gained that point you move it back 398 yards, and again they get the new idea with convenient alacrity." The hint then followed that human beings usually had too much hen sense for their own good.

Office of Investigatory Services: Established in WFA March 21, this Office, under Director J. M. Mehl, will administer the Commodity Exchange Act, and develop information and means to facilitate the prevention of speculation, profiteering, frauds, and violations of all WFA food programs. It will also perform certain other auditorial, accounting, and investigative functions. See Administrator's Memorandum 27, Revision 1, Supplement 4.

Office of Labor changes: At the request of the Secretary of War, Brig. Gen. Philip G. Bruton has been released from his duties as Director of Labor to return to the Army Engineer Corps. Lt. Col. Wilson R. Buie, former Assistant Director, succeeds him.

Dr. Hartman killed: Dr. Leo H. Hartman, on military furlough from USDA, was killed December 29, in an airplane crash on Adak Island, while being transferred to a hospital on the Alaskan mainland. Dr. Hartman was a veterinarian in the Bureau of Animal Industry, Harrisburg, Pa., before he entered the armed forces.

How long? In came a postal bearing this, clipped from a letterhead: "United States Department of Agriculture, Agricultural Research Administration, Bureau of Plant Industry, Soils, and Agricultural Engineering." These anguished words followed: "How long, O Lord, how long!"

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USDA

FOR APRIL 16, 1945

by 9:30 all is ready for the issuance of two daily mimeographed sheets on both sides of legal-sized paper. Cutting the stencils is a complex job. The material is filled with what to a layman may seem to be tricky figures and abbreviations, so extra care must be taken.

Rush work—important!

The mimeographs give complete demand, price, supply, origin, and shipping-point information on all commodities arriving and changing hands in the local market that day. Newspapers send messengers for copies. Farmers, producers, brokers, merchants, railroads, and others find them invaluable. Moreover, the accuracy of these reports is such that courts accept them in evidence without question. Incidentally, 149 different sets of market reports were certified by the Secretary of Agriculture for court use in 1944. No record is available as to the number of uncertified reports used by the courts, but it ran into the hundreds.

It is easy to see how exacting this work is. The workers must be accurate, dependable, and there every day.

Just once since market news reporting began in 1916 was there a question of abolishing it. At that time the public set up such a concerted howl that the work was suspended only a few days.

What Mr. Mosier does is typical of the work done by other market reporters in OMS. As C. D. Schoolcraft, in charge of fruit and vegetable market news, says: "Yes, it's true that in this work it's accuracy that counts, but let's not forget that all of us market news folks are human beings. Errors may occur in a report but we certainly make every effort to keep them out."

Agricultural Statistics

THE 1944 edition of Agricultural Statistics—a book of 590 pages—is off the press. Department workers who have use for this statistical volume can obtain copies through the information offices in the respective bureaus. In the near future, each chapter of the book will be reprinted as a "separate" and these reprints will be available for answering letters or other inquiries.

Richard K. Smith, of the Division of Agricultural Statistics, Bureau of Agricultural Economics, is the newly appointed chairman of the Yearbook Statistical Committee. Suggestions for improvements or new material for the 1945 edition of Agricultural Statistics should be sent at once to Mr. Smith in BAE.

Publications

THE EDITOR attended a small dinner not long since at Michigan State College. Dean of Agriculture Ernest L. Anthony, Extension Director R. J. Baldwin, Experiment Station Director V. R. Gardner, Extension Editor W. Lowell Treastor, and others from Extension and the agricultural faculty were present. After the dinner the editor talked a little about the organization and functions of the Office of Information and this led to an interesting discussion of agricultural publication policy.

Were too many publications issued? What kind should be issued? Were those issued too highbrow or too lowbrow for the purpose? The use of color had been found effective in Michigan; how far should this be pushed? Who wrote best, specialists or special writers?

It was agreed that rather effective measures are being taken to prevent duplication between Federal and State publications, also that publications should be issued only on a basis of known and proved demand—never because a specialist assumed that his "public" wanted a publication, or because he wanted to issue one for prestige purposes, or to get a raise! But publications should never be handed down from on high.

An interesting experiment had been tried up there. A specialist had written an apple-pruning bulletin. Then a professional writer had written up the same material. Both bulletins were made available to farmers, who nearly always picked the specialist's version by preference. Why? Could specialists write better than writers?

Well, the writer wrote conversationally. Perhaps, while farmers talk conversationally, they do not care to be addressed thus in print. Perhaps conversation is a poor and diffuse medium through which to present a how-to-do-it message. Also this may not have been a fair test, as both publications were signed and some may have thought only the specialist's version was authoritative. But the way is pointed here to other

interesting and revealing experiments.

It was agreed that all publications should be dated for the guidance of readers, and they should be signed by the writer, if for no other reason than to fix responsibility. Publications should be as clear and readable as possible, whether popular or technical. Finally, the fact was brought up that the process of technical and scientific publication is so slow these wartime days that scientists are more and more tempted to issue press releases or popular versions before their work is recorded in journals of research. No solution to this problem came forth, though most believed advance popular publication wrong.

Accuracy counts

"IN THIS WORK it's accuracy that counts"—W. H. Mosier speaking. For 20 years Mosier has been fruit and vegetable market reporter in Cincinnati for the Office of Marketing Services. (Other offices in that city take care of livestock and other OMS activities.) Mosier's is one of some 22 year-around market stations which—together with seasonal offices in some 40 to 45 points in major shipping areas, such as the strawberry region around Hammond, La., and the potato areas around Presque Isle, Maine—provide Nation-wide coverage of fruits and vegetables.

This reporter is up at 6 a. m. and by 7 is at the market where carload lots of fruits and vegetables arrive in town. Reporters at other markets may be on the job a little earlier (an hour or two); it all depends on what time business is done locally. The market reporter's job is to observe trading activity, volume of supplies, and quality, and determine the prices at which commodities change hands. Meanwhile his competent clerks phone every railroad in town and tabulate carload arrivals and those standing on tracks by States of origin—like, apples, 1 car from Virginia, 2 from Washington, and 7 on tracks.

When the reporter returns to his office

A woman scientist

AT THE MEETING of the Potomac Branch of the American Phytopathological Society, held at the Plant Industry Station, Beltsville, Md., in February, much interest was shown in Dr. Anna E. Jenkins' presentation of a paper prepared by her in collaboration with M. J. Forsell and L. W. Boyle, reporting the discovery in the United States of what is known as *Elsinoë piri* (Woronich.) Jenkins, causing a leaf and fruit spotting of apple and pear. This recalled the fact that a paper by Dr. Jenkins attracted much attention at last year's meeting of the Society—a discussion of "edema" or "wart" of cultivated violet, identified by her as the *Sphaceloma* disease. In that paper the historical background of the disease, as sketched by her, touched on the work of several early Plant Industry investigators—B. T. Galloway, A. F. Woods, P. H. Dorsett, David Bisset, *et al.*

These papers emphasize the fact that many important contributions to the Department's research program have been made by women. Dr. Jenkins, in particular, has an extremely wide range of activities and is known in scientific circles abroad, as well as in this country. From the start of her Federal service her work has attracted the attention of foreign research agencies. Early in her career, while she was making identifications in mycology, establishing the life history of species by culture work, and classifying material for inclusion in the Bureau of Plant Industry's pathological collections, she was asked by heads of foreign plant experiment stations to help them work over and describe new species in their collections.

Good friend of Brazil

In the January-June 1944 issue of *Bragantia*, published in Brazil, A. P. Viegas points out, in describing *Stilbocrea jenkiana*, that it has been "named in honor of Dr. Anna E. Jenkins, United States Department of Agriculture, and good friend of Brazil." He undoubtedly was thinking of the time back in 1935 when Dr. Jenkins, on detail to the Brazilian Government, went to South America and, working with Dr. A. A. Bitancourt of the São Paulo Biological Institute of Brazil, promptly identified the type of scab that had been causing serious injury to Brazil's famous navel orange.

While still a "freshman" in the Federal service, she was honored by an invitation from the New York Botanical Garden to prepare the section on

Eroascales for inclusion in North American Flora. She has added to her reputation by outstanding work in connection with citrus and avocado scab, and particularly by her success in isolating the causal organism of the brown canker disease of the rose.

Dr. Jenkins is a graduate of Cornell University, which awarded her B. S. A., M. S., and Ph. D. degrees. She served two years as instructor in plant pathology there before joining the Department's staff.—JOHN A. FERRALL, PISAE.

FSA committeemen

WHEN FSA county committeemen are asked to turn out to learn their new duties under the GI Bill of Rights, they turn out, weather to the contrary notwithstanding. Like our faithful postmen, neither snow, rain, sleet, nor gloom of night can stay their coming. Add in icy roads and other unforeseen obstacles and it still goes—especially in such States as Colorado, Wyoming, and Montana.

These committees were designated to act as loan-certifying agencies on farm loans guaranteed to veterans under provisions of the GI Bill of Rights. The Veterans Administration called for a hurry-up program. Regional schools were held promptly. Then FSA teams went into the field for one-day sessions with committee members.

It was then January in the Rocky Mountain States and anybody can imagine what that meant. In northern Wyoming two farmers put chains on a tractor, plowed through 2- to 7-foot snowdrifts on a 25-mile stretch of road to reach an open highway, then drove 35 miles more to the meeting place. Another farmer got up in subzero weather, took the teacher 15 miles to school (a daily assignment), then doubled back, and got to the meeting before it started.

In Montana many farmers drove 40 to 50 miles at 15 degrees below zero! These winter trips are hazardous to the extreme. One committeeman, who sat up all night with a sick child, milked his dairy herd earlier than usual, left a lot of surprised cows, hired a man to make his milk deliveries, and then spent the day at a committee meeting miles away.

All committeemen showed deep interest in the program. They eagerly took their new assignment. Many are veterans of World War I and have relatives in No. II. Thus, despite all the weather could do to prevent, these committeemen stayed in step with others in more temperate climes. All are now ready to make certifications on farm loans under the bill.

Statistics factory

WHILE AT Iowa State early this year, the editor visited the statistics factory operated there by the Bureau of Agricultural Economics (Arnold J. King), Iowa State (G. W. Snedecor), and the Bureau of the Census. The last-named is among those present because it became interested in BAE's master sample as applied to census and enumeration problems. Though originated for farm problems, it can easily be developed to meet the general population problems of the Census, and a building full of workers is hard at that job now.

The statistical research laboratory at Iowa State was long unique, though now it is being imitated. Such laboratories are very valuable even in a monetary way. Proper design of experiments can readily enable the scientist to get twice as much for his dollar spent in research. Statistical control and analysis of experimental data render the entire process of scientific research more correct and reliable.

BAE set up its master sample work here because Iowa State already had a fine, well-staffed statistical research center. They don't come better than Snedecor and his coworkers.

Victory Rangers

VICTORY RANGERS is the name of an organization originated and founded by Hans Kardell, Extension county agent for Eaton County, headquarters at Charlotte, Mich. Like other county agents, Hans was spending so much of his time on "draft" work that he lacked time, he thought, to be a good county agent. Furthermore, there was an inclination to blame the county agent if a boy got drafted because he made the deferment investigation.

So Hans conceived the idea of forming his occupationally deferred 2-C's, especially those between the ages of 18 and 25, into clubs or groups. He had about 350 of these in the county, also some older deferred agricultural workers. Morale was low. These men and boys tended to slink down back streets. Many of them were trying to get released to go into the armed forces or into war industry, right when they were urgently needed for food production.

Hans got the Selective Service board in on the deal. The name Victory Rangers was selected for the group by ballot on the five most popular names suggested. Regular meetings are held in various localities where draft-deferment and farm problems are discussed by the Ex-

tension people and by members of the Selective Service board in the most friendly, cooperative way. What is more, each ranger sends Hans a tabulated monthly report telling precisely what he did the past month to justify deferment.

If the report fails to show up, that alone is suspicious. But Kardell looks forward to a permanent organization of these fellows as a group composed of men who fully did their bit during the war. By organizing the Victory Rangers he conserves his own time, does his work more efficiently, builds morale in essential farm workers and prevents them from leaving farms, aids the Selective Service board, and in general hits the jackpot all along the line.

Land Utilization Projects

COOPERATIVE MANAGEMENT of land, adjustments in land use, and the balancing of populations and land resources are paying well on some 20 million acres in a dozen Land Utilization Projects in the Northern Great Plains range lands. The projects are demonstrations, including Federal, State, county, and private lands. Soil Conservation Service supplies the technical land-management assistance.

Federal lands are mostly abandoned submarginal croplands and severely depleted range lands bought after the 1934 drought. They aggregate about a fourth of the project areas. Seeding of grass, development of water supplies for livestock, and removal of fences and abandoned buildings were needed to make them usable.

Boards of directors of grazing districts and associations and soil conservation districts organized by the operators administer the use of project lands, aided by SCS employees. The associations have leased nearly all State, county, and private lands not already parts of operating units. They lease the Federal lands for a 10-year period.

Allotment of grazing privileges, issuance of permits, and collection of the fees are in the hands of the local administration. The aim is to establish the maximum number of economically sound family-size ranch units, equivalent to 100 to 150 cows. This has generally been accomplished. No previously established units were disturbed, however. A feature of the Land Utilization Projects is the cooperative use of large pastures by many operators, where one range rider can care for the stock during the grazing season and thereby reduce expense of operations.

An example of accomplishment: In

1936, most of the privately owned farm and ranch lands in Prairie County, Mont., had been tax delinquent for several years. Tax payments now are current, and in the Sixth War Bond campaign Prairie County was the first in the United States to meet its quota.—HAROLD J. SWAN, SCS.

Soft bodies * * * showers of steel

ENSIGN Philip G. Perdue, USNR, formerly with Marvin Sandstrom and Bill Ward (in old Distribution), took time to write the editor recently. These pithy letters from the front are appreciated by him as the highest possible compliments. Perdue writes:

While I sat in the wardroom thinking about what a whale of a fine job our tough Marines were doing, and wondering what we would do without them, mail was delivered (first for our ship in weeks) and in it a copy of *USDA* for January 22. Your first column startled me (Just a letter), for it was my ideas in print—sort of like starting to say something and having someone else say it before you quite figured out how to put it into words. And it was said wonderfully well, with unexpected insight.

Back when I grabbed a paper to read as I elbowed my way into the old *USDA* cafeteria, the war was remote—a general sense of well-being with the report of victory, a bit of a too-bad attitude if we suffered a setback. I didn't know then that an army isn't a machine, but a bunch of men. I didn't know a victory wasn't a victory, but just less of a loss.

I hadn't seen thousands of Marines storm a beach, cut with their soft human bodies through almost solid sheets of steel from enemy guns, fight in water that was crimsoned with blood and clogged with the wounded and the dead. Personally I'd like to see a color, sound movie of an amphibious operation, with all the blood and guts and horror undeleeted, shown in every USA movie house, not to shame civilians, but just to let them know what goes on. But I'm getting morbid. I really wanted to say thanks for saying just right what is in the hearts of so many of us who have watched the Marines in action and who have wondered whether we'd have the guts to do what they are doing every day.

Unique USDA Club

ONE NIGHT early in March the editor talked to the *USDA* Club of Harrisburg, Pa. Its president is Carson F. Mertz of *WFA's* Farm Security Administration, who had the original idea of not limiting its membership to *USDA-WFA* personnel. For he thought it would be a good idea to invite all those telephone voices and letter writers with whom our personnel regularly transacted business.

The idea worked out superbly. Possibly few but Mertz could have accomplished what he did, because he has a way with him. He just naturally generates good will towards our agencies and our

workers on the part of all comers, whether Federal or State workers, or outsiders. The aforementioned meeting resulted in a turn-out of 37 persons representing not only *USDA* and *WFA* but also *OPA*, *WPB*, *ODT*, other Federal, and State agencies. The Secretary of Agriculture for the State of Pennsylvania and Extension Editor Ed Rohrbeck from State College were there.

Your editor's feeling is that Mertz has hit upon a jackpot idea. He facilitates the transaction of public business and engenders good feeling. He enhances the respect of workers in other agencies for our own and fosters the most admirable form of cooperation with State workers. Take a bow, Brother Mertz!

Supply Man Olmstead

FROM "clerkin'" in a Twin Falls, Idaho, grocery store to top groceryman for the Allies—that's Lt. Col. Ralph W. Olmstead. As Vice President of the Commodity Credit Corporation and Director of Supply, he directs the purchase, storing, and shipping of food for our Allies, U. S. territories, Red Cross, and liberated areas. Too, he allocates food to our own armed forces and about 40 other claimants. His grocery bill runs as high as \$8,000,000 in a day. Into his market basket go about 12 billion pounds of food a year.

The Colonel got his start in the food business on the family farm in Idaho. As a boy he carried produce from the farm to the country store to be used in trade. Then came his experience on the other side of the counter. Later, in school at the University of Idaho, he waited on tables and helped prepare food to balance his board bill.

After receiving an A. B. from the University of Idaho in 1932, Lt. Col. Olmstead detoured from the food field into law. He received an L. L. B. from George Washington University and was admitted to the bar in the District of Columbia in 1935. He went directly into the office of Senator Pope, of Idaho, and in 1939 moved to the Department as an Assistant to the Secretary. Then he was named Chief of the Division of Organization and Personnel Management, followed by work as Assistant Administrator of the Surplus Marketing Administration and its successors, the Agricultural Marketing Administration and Food Distribution Administration.

In June 1942 he was called to active duty with the Army Quartermaster Corps and assigned immediately to work with war food problems—and he's been working with them ever since, first as

Deputy Director of the Office of Distribution, then as Associate Director of the Office of Supply, and now as Vice President and Director of Supply, CCC. Last fall he visited England, France, and Russia as representative of the War Food Administrator to study food situations in those countries. He expects to leave WFA the end of April to fill an important position in the food set-up in Germany, details of which will be disclosed later.

Lt. Col. Olmstead is married and has two children. They make their home in Arlington, Va.—WILLIAM B. WARD, Office of Supply.

Blue mold

THE HEAD of the dairy department of Iowa State, C. A. Iverson, has a blue mold factory. He didn't intend to have it. It just grew up and he can't unload it. The blue mold is used, of course, in making blue mold cheese.

The pioneering work on domestic blue mold cheese was done by the Bureau of Dairy Industry in USDA. But workers at Iowa State improved the process, applied it to homogenized milk, and made a big thing out of it in what may be the cleanest cheese factory on earth. This led to growing blue mold on sterilized stale bread. The whole is later crumbled up and sold at \$2 a pound, \$8,000 worth a year. They would like to get out from under this job, but the cheese makers of the State won't let them.

As the cheese cures, in the whitest and cleanest curing rooms you ever saw—one of the cheese makers is such a fanatic on cleanliness that he almost sets his wife crazy at home in his critiques of her housework—it becomes covered with blue mold. A strange red mold also crops out—of no real importance, but colorful—and with the white of the cheese showing through you have it, patriotic red, white, and blue. Some color photographer ought to do a job here.

City farmers

IN FEBRUARY 19 USDA we had a discussion under this title. A trip among the Extension workers of the Midwest causes us to expand the category a bit. Cities are full of professional and business men who like to buy farms as they become middle-aged. Nor do they just dabble in farming. They usually want to do a good job of it and Extension workers are called upon initially to help them buy good farms.

Next, every winter in various cities, the resident county agent holds school

for city farmers, telling them about the latest practices. This is dangerous business too, for the Extension workers tell the editor city farmers are not like rural farmers. They will go do what you tell them to do right away and, if it fails, you are likely to get the blame.

Rural farmers are different. They have to be argued with and convinced. It is a long process of education and persuasion. Finally, when they do carry out the advice of Extension workers, they have decided the idea was their own in the first place, so they willingly assume some of the blame if it fails. But those city farmers—they'll go obediently and do what you tell them to do every time. So watch out.

Brief but important

Washington Scientist: Some readers may be interested to know about a new magazine of this name, of which Vol. I, No. 1, was issued in February from Washington, D. C. Ware Cattell is editor. The journal aims to keep Washington scientists well informed about themselves and to promote wider knowledge and understanding of the other man's work and problems. It is to be "lively, terse, newsy, accurate, and dignified"—more power to it. Dr. E. C. Auchter, our former Administrator of Agricultural Research, discusses the research program of the USDA in this first issue.

Goals: Information on crop-acreage and livestock goals for 1945 is attractively put forth in a processed publication issued by WFA's Agricultural Adjustment Agency in February. Get copies from AAA.

Migratory farm-worker health: Public Health Reports, March 2, Vol. 60, No. 9, contains an excellent and comprehensive discussion of Public Health and Medical Services for Migratory Farm Workers, with Dr. F. D. Mott, Chief Medical Officer of the Farm Security Administration, as senior author. This program, though initiated by FSA, is now under the Office of Labor. Doctor Mott is also assistant to the chief of OL's Health Services Branch.

Retired but interested: Apparently many retired Department employees are still interested in what goes on around here. The Office of Personnel wrote to 774 retired folk, asking if they would like to be put on the mailing list for USDA. It seems 232 do want it, and many of them wrote appreciative letters. Incidentally, 7 letters came back marked "deceased," and 64 were returned because the addressees could not be found. (We wonder idly whether these 64 people get their retirement checks.)

Farmers' Museum: A new kind of museum recently opened in Cooperstown, N. Y., according to the Museum News. Principally a depository for early farm instruments used or patented by farmers in the eastern United States, the Farmers' Museum will also promote the study of agriculture and early farm life from economic and sociological viewpoints. The museum property includes 25 acres of land with a natural amphitheater where folk plays and community meetings are held.

Record forest dividend: Forest Service says an all-time high dividend of \$3,894,616, rep-

resenting 25 percent of the 1944 cash receipts from national forests, goes to 653 counties in 40 States, Alaska, and Puerto Rico. This money comes from timber sales, forage, water power, and other uses on national forest lands, and must be allotted by the States and Territories for schools and roads on the basis of county acreage in national forests. The dividend was unusually large last year because of unprecedented wartime needs for lumber and use of range lands for food production.

Right address: Though the name of the U. S. Department of Agriculture proper has not changed for 83 years, letters addressed in strange ways still arrive in Washington. These are a few of the wrong addresses received by just one person in the Department: Farm Bureau, Capital Building; Minister of Agriculture at White House; U. S. Farm News Department; Department of Economics, Agricultural Division; Chamber of Agriculture; U. S. Agricultural College; Government Farms; Department of U. S. A., Official Business. Maybe we should all do a little missionary work in getting the right name and address to the public.

One chance in 1,034: Oxford 26 is the name of a new wilt-resistant variety of tobacco—the first one in this country—developed by specialists of the Agricultural Research Administration and the North Carolina Agricultural Experiment Station. Starting 11 years ago, tobacco experts collected 1,034 tobaccos from various parts of the world before they found one, No. 448, from Colombia, which had high wilt resistance. From No. 448 they bred the new variety, Oxford 26, which makes it possible for growers to produce 25 percent more leaf, at no additional cost, except possibly a slightly higher price for the seed.

Slow to bolt: Slobolt is a new lettuce variety developed by Dr. Ross C. Thompson, of the Plant Industry Station, Beltsville, after 10 years of selection and breeding. The new lettuce withstands midsummer temperatures without "bolting" to seed too quickly. Dr. Thompson says if the plants are set 10 to 12 inches apart and only the basal leaves picked when large enough, the lettuce may be harvested over several weeks, making Slobolt a very good variety for home gardens.

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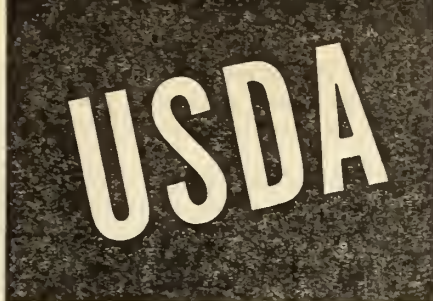
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FOR APRIL 30, 1945

Our part in the peace

EXTENSION SERVICE was forehanded when it came to the Secretary's and the Administrator's memorandum of March 28, suggesting that we exercise ourselves to learn more about the foundations for lasting peace and the accomplishments of Bretton Woods, Hot Springs, Dumbarton Oaks, and Chapultepec. On the afternoon of April 3, the Extension Institute program gave out with just the kind of information the ordinary run of us requires on such subjects.

Of particular interest were the following: The Food and Agriculture Organization of the United Nations (FAO), by Dr. Mordecai Ezekiel, of the Bureau of Agricultural Economics; The Bretton Woods Monetary and Financial Conference, by Leonard F. Miller, of Ext.; The Inter-American Conference on Problems of War and Peace, Mexico City, February 21 to March 8, by John E. Lockwood, of the Department of State; The San Francisco Conference and Dumbarton Oaks Proposals, by Dr. Herbert E. Abraham, of the Department of State; and The Educational Program on International Organization, by Chester S. Williams, also of the Department of State.

You can get copies of these and other talks from the Division of Extension Information, Ext., and they are well worth studying. Also, most agencies are distributing to their personnel four foreign-policy outlines just published by the Department of State. Inquire for these through your own agency channels. Chester Williams, Division of Liaison, Department of State, can supply certain useful charts and slides.

The size of it is that most of us do not know what has been proposed at Hot Springs, Bretton Woods, Chicago, Atlantic City, and Dumbarton Oaks, or what the San Francisco Conference means. If we are to act intelligently by the democratic process we must inform ourselves about these matters. A broad educational program is on in this sector.

ARA top personnel changes

WHEN Dr. E. C. Auchter resigned as Administrator of the Agricultural Research Administration, to become Director of the Pineapple Research Institute of Hawaii, Assistant Administrator P. V. Cardon was appointed by Secretary Wickard to succeed him. Mr. Wickard spoke of Cardon as "a scientist of exceptionally broad training and experience."

Before becoming Assistant Administrator of ARA, Cardon had been conducting and directing scientific research for 30 years. He was born in Logan, Utah, in 1889, graduated from Utah State College, and spent a decade, beginning in 1910, as an agronomist in our old Bureau of Plant Industry. Returning to the Northwest, he spent 15 years as professor of agronomy at Montana State and on the staff of Utah State.

He became Director of the Utah Agricultural Experiment Station, holding this position 7 years. During the final year he was also regional director of the Land Policy Section of the Agricultural Adjustment Agency. He returned to BPI in 1935 to head the work on forage crops and diseases and 4 years later became its Chief. He has been succeeded as Assistant Administrator of ARA by Dr. W. V. Lambert.

Lambert comes to Washington from La Fayette, Ind., where he has been associate director of the Indiana Agricultural Experiment Station. He is one of the country's top experts in livestock research. Born in Stella, Nebr., in 1897, he took his B. S. at the University of Nebraska, his M. A. at Kansas State, and his Ph. D. at the University of California. He grew up on a farm and was a Nebraska assistant county agent before becoming instructor in genetics and later assistant professor at Iowa State.

For about 4 years Lambert was in charge of the livestock breeding programs of our Bureau of Animal Industry. He helped establish our Bankhead-Jones Laboratories at Ames, Iowa, and East Lansing, Mich. When he first came to

the USDA in 1936, he was in charge of the animal genetics investigations at Ames. He is the author of several technical bulletins and of numerous scientific papers. Active in many agricultural fields, he holds office or is a leader in a number of farm and livestock projects, committees, and organizations.

Seventh War Loan Drive

THE SEVENTH War Loan Drive is on! The six pay-roll deductions for April, May, and June count towards our quotas. *Approximately 7,300 employees in USDA-WFA are not participating in the pay-roll plan.*

Secretary Wickard and War Food Administrator Jones have personally asked each Bureau chief to make a special effort to increase the number of bond buyers through the pay-roll savings plan and to see that every employee is asked to participate.

Let's not wait to be asked. Let's save our money by making a pay-roll allotment. Can anyone of us conscientiously say we can't afford to save at least \$3.75 (minimum deduction) a pay period, when over 10,000,000 of our relatives and fellow Americans are in uniform?

SEE YOUR BOND MINUTEMAN TODAY!

Welcome back, veterans!

THE DEPARTMENT is welcoming back returned veterans. The Office of Personnel reports that nearly 1,000 veterans, formerly our employees, have been reinstated in jobs in USDA-WFA. Also more than 600 veterans not formerly in the USDA have been appointed.

W. A. Jump, Director of Finance, said recently to Congress:

Mr. Reid (Director of Personnel) has worked out a very fine policy, in consultation with people all over the Department, concerning servicemen. * * * Department of Agriculture servicemen not only do not have to worry about getting everything they are entitled to under the law, but in addition to that we have all agreed, everyone of us down there, that we are going to carry out a spirit to that effect that I think is even more important than the law. * * *

We intend to make them welcome. We have all agreed that we cannot think of any lower or more incongruous thing than to have a serviceman worried about whether, not that he is technically entitled to his job, but whether he is going to be welcome. I think there is a feeling on the part of everybody in the Department, we are all united on the fact, that we want to welcome him back. * * * We want them back and are going to make them welcome.

There are still more than 16,500 USDA-WFA men and women serving in the armed forces.

For Joe Storm

THE following poem is by John Caswell Smith, Jr., but the editor read it immediately after he saw the account of Joe Storm's death in the casualty list. Joe had been in the Office of Information; he also founded Spade and, so far as we are concerned, these lines are for him.

Tell me, if you can, why your horror is greater over the death of a woman or a man in a blue serge suit than the bayoneting of a poet or a milkman who is dressed up in a uniform.

There is no age or sex for death, but if one must die it is preferable to have the darkness come on your own familiar little street rather than in some far-off foxhole.

It's no good putting them in the clothing of death.

It doesn't lessen the terror of those last dark seconds.

We remember Joe last tumbling down the corridor just after he had started Spade—showing us the holes in his suit, his hat, his pockets, proving how poor he was. He had expected to be in service then and had rid himself of all his good clothes, but there was a delay, so he started Spade. He was an idealistic crusader from the word go. He supported the war politically, journalistically, passionately. Oddly enough, just before word of his death came, he wrote Duncan Wall that he had thus advocated supreme sacrifice by many young Americans. He went on: "I have helped make my bed. Now I shall sleep in it."

New Haven

A WHILE BACK the editor visited New Haven, and later Boston, primarily to address USDA Clubs, secondarily to see what USDA-WFA workers were doing in these cities. Raymond C. Brown and his associates, of the Bureau of Entomology and Plant Quarantine at New Haven, are supervising large-scale tests of the use of DDT against forest insects. Airplanes are being used to distribute the chemical, either in solution or in emulsion form. It easily penetrates the forest canopy and kills every insect, the destructive ones and their predators alike.

Tests are now being made in several States and in Canada to determine the best methods of application, diluents, solvents, and strengths of solution to use. The Fish and Wildlife Service is cooperating in tests to determine the destructiveness of DDT to birds, fish, and the insects fish eat. There is also the biological balance, which should not be unfav-

orably tipped even by DDT. Incidentally, the insects poisoned go into convulsions and die of what might be called the DDT's.

DDT looks like the first effective remedy ever found for destructive forest insects. But many details remain to be worked out and this takes patient and well-planned research by many EPQ scientists.

Then there is the Connecticut Agricultural Experiment Station, which is unique in several respects. It—through its direct ancestor at Middletown—is the oldest of the State experiment stations. Since Cornell and Geneva consolidated, it is the only one which has no organic connection with a land-grant college. Its nonteaching staff performs outstanding research along lines originally fathered by the distinguished Yale chemists, Benjamin Silliman and Samuel Johnson. It was they who inspired our own W. O. Atwater, pioneer nutrition scientist.

Atwater started his notable researches in Connecticut. Later at this station, Osborne and Mendel carried on nutrition research which was quite as outstanding. Hubert B. Vickery, present representative of this noble scientific line, is a member of the National Academy of Sciences.

Turkey dinner!

Neely Turner, working under State Entomologist R. B. Friend, is collaborating with our Northern Regional Research Laboratory, seeking nicotine compounds, synthesized at the lab, which will defeat the corn borer in open battle. He raises bugs in a special greenhouse full of plants kept just right to invite insect infestation. Incidentally, he has discovered that the alluring fog hanging long in the air after an insecticide is dispensed may not mean so much as we have thought, for the important particles which settle get down in about 2 minutes, and the fog remaining is of little moment.

D. F. Jones is a wizard at breeding hybrid corn adapted to local conditions. He is also busy crossing imported blight-resistant chestnut stock of low, bushlike growth habit with sprigs of American chestnut which still grow up from blight-killed tree roots. He is combining high yield of chestnuts with the upright habit of growth of the American chestnut.

Experiment Station Director W. L. Slate's headquarters was the former home of Eli Whitney II. Slate, acting director also of the Storrs Station, is an engaging gentleman, well versed in

the historical lore of experiment-station work in Connecticut and elsewhere. He talked to the editor informatively and charmingly about Atwater, his predecessors, and successors. In all, this was a day well spent, which wound up with us talking about USDA history to the largest attendance the local USDA Club had mustered in the 23 years of its existence * * * but they had a superb \$1 turkey dinner. We think that was the prime attraction, not the speaker.

Desert to garden

CARL S. SCOFIELD, who retired February 28, after completing 45 years of service in the Department, was a Bloomington, Minn., boy, graduate of the University of Minnesota, who came to Washington in 1900 to help make gardens in the desert—though he didn't know it at the time. He arrived just as the Bureau of Plant Industry (now PISAE) was being organized. He displayed so much skill in organization that Dr. B. T. Galloway called on him to help set up and start the various lines of work. When Scofield began to submit manuscripts for publication, Galloway was so impressed with his literary ability that he made him chairman of the Bureau's Publications Committee. However, it was not until 1904 that the opportunity came that paved the way for his life work. Said Galloway's annual report for 1905:

Great interest has been manifested in the development of agricultural work in the West, especially in connection with the reclamation projects. The Reclamation Service recognizes that to make its work of practical value it must be demonstrated to the farmers what kinds of crops and systems of agriculture should be used. By direction of the Secretary, this western agricultural work has been placed in charge of Mr. Carl S. Scofield.

That was the beginning of Western Agricultural Extension, later the Division of Irrigation Agriculture, PISAE, which had been headed by Scofield since its start. Soon he had field stations in operation on half a dozen reclamation projects, and it is no exaggeration to say that the gradual development of these projects as progressive agricultural areas was due largely to the experimental and advisory service supplied as a result of the work on these farms.

Other achievements

That would have been sufficient to fix Scofield's place firmly, but he has to his credit in addition several other outstanding research contributions. For example, he had an important part in planning the introduction of durum wheat from Rus-

sia in the early 1900's. He has made vitally important contributions to our knowledge of the behavior of boron in soils, irrigation waters, etc. To his credit, too, is the determination of the cause of hardening of certain irrigated lands, a condition that not only resulted in decreased production but sometimes led to abandonment of such lands. He also had a leading role in the successful establishment of commercial Egyptian cotton growing in Arizona through his work with the Southwestern Cotton Committee, of which he was at one time chairman.

However, those who have worked in close relation to him through the years think of him first as a man, then as a scientist! For Carl Scofield is not only a man's man, but a molder of men. His protégés are scattered over the face of the earth, many in high places, and all bearing the impress of his fine character. As collaborator, he still keeps in close touch with the work, coming down to the Plant Industry Station at Beltsville, Md., twice a week.—JOHN A. FERRALL, PISAE.

More anent "stenos"

AMONG COMMENTS stirred up by the articles Dictation (*USDA* November 27, 1944) and Stenographers, attention! (*USDA* January 22) was a suggestion from a Department employee that stenographers be recruited and placed according to their educational background. The Office of Personnel has explained why this isn't feasible.

We haven't had any stenographers certified by Civil Service—except in isolated cases—for about two years. There doesn't seem to be any prospect of getting "certified" stenographers until after the war. Even then, obstacles will still exist. The Starnes-Scrugham Act and Civil Service regulations require that eligibles be certified in the order of their standing on the register and that selection be made from the top three names. There are relatively few eligibles on a stenographic register who have, say, a college degree, and even if their names did appear on the register, Civil Service would certify them in order of their standing.

Then, too, the Bureau of Agricultural and Industrial Chemistry, for example, could not ask for a stenographer with a science degree because there is nothing in a stenographer's job that requires scientific knowledge. If the Department put such requirements as this into a job description, Civil Service would say we

were looking for professional employees and would have to draw on the professional register.

Personnel did say, however, that a system of transfers among bureaus might some day be worked out, so that stenographers' education and training might be used to best advantage. Meanwhile, in wartime, "stenos"—good, bad, and indifferent—are scarcer than hens' teeth.

Thomas N. Roberts

THOMAS N. ROBERTS, Special Assistant to the Director of Personnel since July 1941, died March 3 at Freedman's Hospital in Washington. He had been in ill health for the past two years. Born in Savannah, Ga., 45 years ago, Mr. Roberts became a career man in agriculture. He was studying for his doctorate in agricultural economics at the University of Wisconsin when called to Washington to take the position he held at the time of his death.

Perhaps Mr. Roberts' most spectacular achievement in the field of practical agriculture was at the Soil Conservation Service's Land Utilization Project near Tuskegee Institute, Ala., where in 1935 he directed the planting of more than 8 million pine seedlings and hardwood trees on some 8,000 acres of eroded land. He also helped to develop Prairie Farms, a rural resettlement project of the Farm Security Administration, also near Tuskegee, for low-income Negro farm families.

Mr. Robert's job in the Office of Personnel was effective in increasing the quality and quantity of competent and qualified Negroes in the Department. In recognition of his excellent personnel work, Hampton Institute, his alma mater, chose him the alumnus of the year in 1942.

T. Roy Reid, Director of Personnel, representing the Department at the funeral services, said this of Mr. Roberts:

During the years that he has been a member of the staff of the Office of Personnel of the U. S. Department of Agriculture, his work has been national in scope. He has aided in making policies. He was always faithful in carrying out these policies. His knowledge, his capacity for work, his quiet dignity, his good sense, his sincerity, his effective presentation of facts, gained for him the confidence of administrators and other employees.—SHERMAN BRISCOE, INF.

Government use of paper: In late March Harold D. Smith, Director of the Budget Bureau, reported that all Federal agencies, the Army and Navy included, used less than one-half of 1 percent of the total estimated supply of newsprint in 1944. This was less than 8 percent of the amount used by a single large metropolitan newspaper.

Retirement to greater service

ON MARCH 31, after 50 years in Government service, Rolla P. Currie retired as head of the Editorial Division, Bureau of Entomology and Plant Quarantine. Editor of publications for his Bureau since 1904, this is a long record of editorial service difficult to match in the history of the Department.

Despite this long service, Mr. Currie did not step out to a life of well-earned rest. He turned instead to a new career likely to be even more useful and active than the one he leaves. On September 18, 1944, he was appointed curate (assistant minister) of the Washington Church of St. Stephen and the Incarnation, which he has served for many years as active church member, teacher, chorister, register of the vestry, and junior warden. On the day before, after many months of university study taken after hours, he had been ordained a deacon of the Protestant Episcopal Church by the Rt. Rev. Angus Dun, Bishop of Washington. Mr. Currie expects to continue his studies for ordination to the priesthood. He intends to enter a theological seminary next fall.

Mr. Currie first came to Washington from Chicago in December 1893 to work as clerk for the Chicago World's Fair Commission, then a Federal agency. He soon transferred to the Division of Insects in the National Museum, starting at a salary of \$1.25 a day, which he says "went much farther in those days." Though he worked as scientific aide, preparing insect collections, his chief interest at that time was the study of birds. Mr. Currie recalls that on loan to Robert Ridgway, curator of birds at the Museum, he became one of two American ornithologists who have described new species of birds of paradise.

Buzzards and planes

At the request of Dr. S. P. Langley, secretary of the Smithsonian Institution, several years before the Wright brothers made their successful flight at Kitty Hawk, N. C., Mr. Currie made many observations and camera shots of the flight of the turkey buzzard. This was after the Langley plane had flown over the Potomac River at Widewater with no passenger aboard. Dr. Langley hoped to discover how to make his plane stay in the air. After many observations, Mr. Currie's report and various measurements of the buzzard were included in Langley's *Memoirs of Mechanical Flight*. He has wondered since if buzzards could

have contributed anything to the development of aviation. His interest in birds has also been kept alive through the years in such associations as the Audubon Society and the American Ornithologists' Union, of which he was an associate member for many years.

In 1904, in order to obtain a salary large enough to support a wife, he transferred from the Museum to the USDA Division of Entomology, which became a Bureau in that same year. Shortly thereafter, he became the Bureau editor of publications, serving in this capacity for the past 41 years. For some time, in part-time work at the Museum, Mr. Currie continued his scientific studies with dragonflies and related insects, but since 1917 he had given his entire attention to the annual flow of 500 or so new manuscripts which the Bureau scientists produce. Previously, he had published several papers on new species of antlion flies, dragonflies, and lacewing flies.

Mr. Currie's colleagues all testify to his unusual competence as Bureau editor, equally versed in scientific background and in editing techniques, highly cooperative in working with others. All will miss him as a friend and helpful coworker. We wish him farewell and good luck in his new career—may it be even greater than the one he leaves behind!—
WILLIAM A. D. MILLSON, EPQ.

Labor education in food

CONVEYING TO our population practical knowledge about food requirements for maximum health is a challenging task. Mature people do not like to be told what is good for them, especially in the matter of eating, where taste, habit, and prejudice rule. Yet, for their own good, such information must reach the public and in such a way that they put it into practice. One way of achieving this is by having people themselves participate in this movement for better food as citizens performing a valuable national function.

One phase of this work is being carried out effectively through the Labor Education Section of the Nutrition Programs Branch, Office of Marketing Services. A labor Committee on Food and Nutrition was formed. It consists of representatives of all labor organizations and auxiliaries and of some related organizations. This committee urges labor to participate in the work of State and county nutrition committees and to introduce nutrition and food education into the union educational activities. The message thus comes to labor from organizations in which they have con-

fidence. Through labor's representatives on local nutrition committees, efforts within the unions are coordinated with local and national campaigns.

Guidance and stimulation is provided by this committee, a voluntary and independent body with an invited adviser from the Nutrition Programs Branch. It sponsors exhibits for national labor conventions and for educational meetings of unions; it publishes pamphlets, or helps its member organizations publish their own, on various aspects of food and nutrition with the help of the WFA adviser. It organizes courses, lectures, demonstrations, contests, and drives within labor organizations in harmony with Nation-wide activities.

Labor's committee has set for itself a 3-point program:

- (1) Nutrition education for health linked with distribution and consumption of food.
- (2) Knowledge of food production problems for better farmer-labor relations.
- (3) Support of the program of the proposed United Nations Food and Agriculture Organization for food and health.

In practice, the committee stimulates and guides labor's interest in food education, industrial feeding, school lunches, adequate distribution of rationed and unrationed foods, Victory Gardens, and canning, freezing, and demonstration centers, as well as our domestic and foreign food policies.—MARK GRAUBARD, OMS.

Brief but important

Frontiers in Land Use Biology: This is the title of a suggestive article in March Soil Conservation, by Edward H. Graham, Chief of the Soil Conservation Service's Biology Division. He examines therein the interrelationships between soil conservation and fish production, muskrat production, streamside ecology, hedge management, rodent and insect problems, and the general effects of erosion on plant and animal communities. Insects cause crop damage of 3 billion dollars every year in this country. Will the adoption of this or that soil-erosion-control practice change insect populations in a beneficial or a harmful manner? There is wide room for fundamentally important borderline research here. The article merits the attention of our scientists generally.

Look here, readers: We should have said that the editorial mentioned in the item, Look here, WFA, in *USDA* March 19 (p. 4), referred to food and not to WFA health and medical programs. In *USDA* April 16 (p. 4), we mentioned an excellent discussion of public health and medical services for migratory farm workers. You might also like to read the article, Health Services for Migrant Farm Families, in the American Journal of Public Health for April. It's by Drs. F. D. Mott and Milton I. Roemer, of the WFA Office of Labor.

Water conservation and utilization: Administrator's Memorandum No. 27, Revision 1, Amendment 6, March 30, transferred to Soil Conservation Service all functions of Farm Security Administration relating to

water conservation and utilization programs of WFA pursuant to the Case-Wheeler Act of August 11, 1939, as amended, and to the item entitled "Water Conservation and Utility Projects" in the Interior Department Appropriation Act of 1940. SCS will work in consultation with FSA and other WFA agencies on certain aspects of these programs.

Attention, all employees: We have been asked to call attention to the Department's stringent regulations against personal use of official automobiles. Department Regulation 1831, based on the Independent Offices Appropriation Act of 1945, says that Government owned or leased automobiles shall not be used personally, and that employees violating this rule shall be summarily dismissed. Congress has again shown considerable interest in this matter by including this same provision in the Independent Offices Appropriation Act of 1946. Do everything in your power to see that this rule is strictly observed clear up as well as down the line.

WFA organization: Administrator's Memorandum No. 27, Revision 1, Amendment 7, April 11, transferred functions related to allocation of food among claimant agencies from the Commodity Credit Corporation to the Office of the Administrator, under supervision of D. A. FitzGerald, who continues as special adviser to the Administrator. Mr. FitzGerald became chairman of the Food Requirements and Allocations Committee, including responsibilities in connection with the Combined Food Board, and chairman of the Interagency Food Importation Committee. Office of Supply's Requirements and Allocations Branch was mainly affected.

Raising calves on bean soup: "In regard to bringing up calves without milk the plan I have always found to work well is to feed on bean soup prepared as for family use, and with the same quantity of salt—say two tablespoonfuls in each mess of 2 quarts. I have always found the calves to thrive upon this as well as upon milk. I take them from the cow at 1 week old."—American Agriculturist, March 1867 (p. 88). The editor's first job was at the Maryland Agricultural Experiment Station, trying to invent a liquid a calf would accept in lieu of his mother's milk. He failed. The calf balked. The editor didn't think of bean soup!

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USDA

FOR MAY 14, 1945

has continued in charge of the same or similar work during its peregrinations through the distribution agencies and then in OMS.

The Director has two sons overseas. His hobby, or, as he puts it, his "chronic disease," is golf. Though his game has been neglected during the war, he claims to have developed a secret weapon for post-war use.

PISAE at Ames

AT AMES, IOWA, several workers of the Bureau of Plant Industry, Soils, and Agricultural Engineering have their quarters and work in close harmony with State people breeding disease-resistant oats and hybrid corn and killing weeds. Among them are G. F. Sprague, H. C. Murphy, L. C. Burnett, and A. L. Bakke. The oats workers head up under the editor's classmate, T. Ray Stanton, of the Beltsville Plant Industry Station.

Hybrid corn has already increased corn yields 20 percent as a result of such cooperative work. Waxy corn is making progress. Oats stand next to corn in progress, at least among the small grains. Resistance to crown and stem rusts and to the smuts has been developed in several excellent strains which have been released and grown for some years now. Acreages of these oats increase rapidly. These new strains were derived originally from an Argentinian and an Australian oat. Their use results in an average increased yield for Iowa of 9 bushels per acre or about 20 percent.

Moist years, which favor the development of rust epidemics, were formerly regarded as "poor" oat years; now they are the best, for the disease-resistant strains outyield susceptible strains most under rust epidemics. In "good" oat years, with rusts not so much a factor, the disparity is not too striking. In general, Iowa oat growers annually profit from \$25,000,000 to \$50,000,000 by growing the resistant strains. These figures are based on controlled trials in 30 countries.

All this is another way of saying that research pays for itself. In 1945 it is expected that all Iowa oat acreages will be in resistant strains. In Wisconsin growers gained sufficient from these oats in one year to finance all the State experiment work for 20 years.

In Iowa Bakke is learning how to shade out bindweed with soybeans. Growing soybeans cuts the 10,000 foot-candles of daylight bindweed really needs to proliferate down to a mere 20 foot-candles. The bindweed can be wholly eliminated by this method. Methods of chemical weed control also are being in-

other persons or agencies, where authorized or required by contracts or by marketing-agreement, marketing-order, or similar programs. It will make cost analyses and perform several regulatory accounting services.

The Director

Director Mehl was born in Illinois some 50-odd years ago and grew up on an Iowa farm. He was educated in commerce and law, and was admitted to the Iowa bar in 1916. He is a member of the American Bar Association and of the Cosmos Club. He joined USDA in 1917 as investigator in cooperative organization. He conducted a number of studies in this field and wrote several bulletins dealing with cooperative purchasing and marketing.

Between 1921 and 1924, Mehl was assistant to the president and later executive secretary of the U. S. Grain Growers, Inc., a national cooperative-marketing association sponsored by the Farm Bureau. Before he entered Government service, he had had also a decade of accounting and business experience, in-

I AM AN AMERICAN DAY is May 20, by Presidential proclamation and in pursuance of Public Resolution 67, approved May 3, 1940. It is the day on which we honor those who have recently reached full citizenship, and reaffirm our own allegiance to the principles of American citizenship. Do all that you can to foster the holding of appropriate exercises on that day designed to re-emphasize the privileges and responsibilities of all citizens of our democracy.

cluding 7 years as manager of a cooperative grain-elevator company dealing directly with farmers.

In 1924 Mehl returned to the Department as investigator in futures trading. He then served successively as grain exchange supervisor in the Chicago field office and as Assistant Chief of the old Grain Futures Administration. He became chief of its successor, the Commodity Exchange Administration, and

"AND the Lord said unto Moses, Get thee up into this mount Abarim, and see the land which I have given unto the children of Israel. And when thou hast seen it, thou also shalt be gathered to thy people. * * *

That we, the American people, could lose a great leader, also destined to see the Promised Land of Victory but not to enter it, could close ranks behind his successor, without disorder, without apprehension, without fear, is the highest tribute that could be paid to our firm faith in our Nation's destiny and in the democratic process.

Like thousands of little men, the Commander in Chief gave his life as the last full measure of devotion to this democracy. We unite without reservation behind his courageous successor and march on without losing step, without even momentarily breaking ranks or faltering.

Newest agency

THE newest-born agency is WFA's Office of Investigatory Services, established by the War Food Administrator March 23, of which J. M. Mehl is Director. The unit started with the Office of Marketing Services' Compliance Branch, which Mr. Mehl headed, and will conduct all investigations relating to the substantive work of WFA that may be required. Though a staff agency of WFA, it will perform some program functions.

Several WFA agencies have had their own investigation sections in the past, but most of them have had to farm their investigations out to other agencies. OIS will amalgamate the investigation sections of several WFA agencies. It will also enforce the Commodity Exchange Act, but will not make personnel investigations, which function remains in the Office of Personnel.

OIS will develop information and means to facilitate the prevention of speculation, profiteering, fraud, and violations in all phases of WFA food programs. In addition to conducting investigations respecting War Food Orders and the purchase, sales, and storage programs, OIS will do such accounting work as these investigations require.

It will audit and examine the books and records of war contractors and of

vestigated. Incidentally a bindweed seed can live 17 years—the pesky rascal!

Science Service recently reported how the California Experiment Station at Riverside “discovered” what appeared to be a new kind of tomato mosaic. But, on check-up, Dr. John T. Middleton found out that the chemical weed-killer, sodium chlorate, used to control bindweed in the California tomato fields, had caused the trouble. Its effects could be noted on the tomatoes even when the last application of the chlorate had been made 5 years previously! So shading out bindweed may be better.

Wasteful writing

THE WORLD regards us as a great industrial Nation and we look upon ourselves in the same light. Yet, when European industrialists visit us, they are nearly always appalled at the evidence of gigantic waste which they see on all sides wherever they go. * * * A whole book might be written about our waste in industry. * * * Bad writing in technical literature is gigantically wasteful.

This material is quoted from Walter S. Lockwood, whose subject was *Poor Technical Writing: One of Industry's Hidden Wastes*, in *March Advertising and Selling*. Lockwood goes on to say that numerous industrial firms issue technical manuals, instruction handbooks, catalogues, bulletins, and so on that are so execrably written they waste everybody's time and get the producer nowhere.

This he denounces as “wasteful far beyond any possibility of calculating,” because the thoughts the material attempts to convey never enter the reader's mind. Such writing results in badly serviced or operated equipment and thus makes ill will for the firm in question. Such poor technical writing occurs, in the main, writes Lockwood, because:

So many businessmen think they can write. Some businessmen think that good writing of technical literature is unimportant. Others think it unjustifiable to hire competent writing personnel. These notions are all wrong, says Lockwood, and proceeds to tell why in some detail. He concludes that it would pay even small firms to incur the expense of hiring technical writing competently done in order to avoid the tragic and gigantic wastes incidental to poorly prepared technical handbooks and instruction manuals.

Poor scientific or technical writing is just as wasteful elsewhere as in business and industry. A sloppily prepared research paper can go on down through the years wasting the time and patience of hundreds of later workers who have to pore over it and guess its meaning. If

it is wholly ambiguous, the same investigations may have to be repeated in order to find out what was meant. All scientific and technical material should be expressed clearly, logically, and as comprehensibly as possible. Wasteful writing should be avoided by all.

Field notes

RECENT field trips enabled the editor to meet and talk with veteran Extension Editor J. E. McClintock, Farm Security's Otto P. Neutzel, and WFA's Clair, V. Underwood in Columbus, Ohio. He also addressed a very large and well-attended USDA Club meeting in a building on Ohio State campus. Moving on to Cincinnati, he interviewed County Agent Bibbee and his labor assistant, Caldwell, as well as Market News Reporter W. H. Mosier. The USDA Club here was rather small and select.

In Indianapolis, County Agent Abbott did his best to inform the editor about what was going on, and Home Demonstration Agent Berlin ably assisted him. We also met Agricultural Adjustment Agency's State Director Vogel, FSA's Regional Director Hughes and its information man, Christie, and addressed an unusually well-attended USDA Club there. In St. Louis we talked to Frederick W. Niemeyer of Farm Credit, made use of the office of the USDA Club president, WFA's Floyd Tushscher, and spoke to the club at a luncheon meeting. Dr. E. R. Draheim, of the Office of Personnel, also was present and spoke felicitously; he was happily much briefer than your editor, who talks too much!

At Lincoln, Nebr., Extension Editor George Round had us attend and talk informally to Extension's Monday morning staff meeting, Director Brokaw in the chair. Later we attended a meeting of the Pasture Forage Livestock Committee, which is doing a remarkable educational job in this State, talked to a large USDA Club luncheon meeting, visited the offices of the Regional Solicitor and the Branch Library, and wound up with Arthur Emerson, of Soil Conservation Service.

Detroit, Pittsburgh, Boston

In Detroit we met Angus Doane, of WFA, and Drs. Stapp and Hock, of the Meat Inspection Service. We had an interesting chat with Wayne County Extension Agent E. I. Besemer, one of whose big problems is tapping the Detroit man-power reservoir for farm labor. The USDA Club met at night in the ancient (for Detroit) customhouse.

In Pittsburgh we disguised ourself as a meat inspector (white coat) and went around a packing plant with Dr. Jelen,

of the Office of Marketing Services. Our veterinarians, stationed at all strategic points, were faithfully overseeing the killing and processing of meat and meat products. The USDA Club met that night in Allegheny and the largest percentage of total potential membership attended that the editor ever encountered.

In Boston we called on USDA Club President W. H. Freeman, long a veteran in our plant quarantine work, and C. D. Stevens and A. W. Lathrop, Bureau of Agricultural Economics statisticians who have the entire group of New England States as their field of operations. We looked in on Brother Higgins, in charge of the WFA livestock and meat work, and talked that evening, at the Yacht Club, to the USDA Club, which turned out a record attendance.

These visitations are simply invaluable for getting an idea of field thoughts, ideas, and conditions. Detailed reports are made of such visits and circulated among personnel of the Office of Information, Office of Personnel, other agency information shops, and OWI's Book and Magazine Bureau. Reports regarding other points visited on these trips have appeared or will appear separately in *USDA*.

Farrington of CCC

MEET THE MAN who directs the buying of entire crops—most of the soybeans, the peanuts, the wool, and large quantities of cotton, wheat, tobacco, corn, and other commodities—for WFA.

He is Carl C. Farrington, Oklahoman who joined the USDA as a junior economist some 17 years ago, and who is now a Vice President and the Director of Basic Commodities for the Commodity Credit Corporation. Carl became Vice President of this multi-billion-dollar agency five years ago. It was only recently—at the ripe old age of forty—that he became Director of Basic Commodities as well.

Carl is a quiet, unassuming man; never says much but does a lot of listening. He has what the fiction writers call a quizzical smile. But he knows the score down to the last decimal point when it comes to figuring things such as commodity loans, processor margins, or what it takes to guarantee farmers their support prices.

Back there in his early days in Oklahoma, Carl engaged in dairy, poultry, cotton, and wheat farming. He graduated from Oklahoma A. & M. College in

1928, and then came on to work for the Bureau of Agricultural Economics. Later he picked up an M. S. degree from his alma mater. He has quite a few points toward a Ph. D. too.

Early administrators of the Agricultural Adjustment Agency also must have thought that Carl knew something about agricultural economics. For in 1934, they reached right over and snared him from BAE. That's how later he got to be Assistant Director of the AAA Western Division and Assistant to the AAA Administrator.

But even bigger things were to come. Shortly after the CCC was transferred to the USDA in 1939, Farrington was offered a post as CCC Vice President.

Carl is married, has three children—two girls, one boy. His hair? He says he lost it in an Oklahoma windstorm.—FRANK GEORGE, CCC.

Now it may be told

RECENT RELEASE of the Department's Technical Bulletin 819 finally gives the American farmer advantage of a technique in long-range drought prediction that may have contributed to some of the early military successes of the German Army. The bulletin, Drought in the United States Analyzed by Means of the Theory of Probability, by George Blumenstock, Jr., Soil Conservation Service, was kept under wraps for 3 years by order of the Weather Bureau for reasons of national security.

The importance of this weather knowledge is further reflected in an incident of the study's progress. When Germany invaded Poland in the early fall of 1939, Dr. C. W. Thornthwaite, an SCS climatologist, was impressed by the Reich's "luck" in striking a period of dry weather in spite of prophecies of rains popularly expected to turn the Nazi path into impassable swamp. He analyzed the weather records of Warsaw according to the method under study by his associate, Blumenstock, and found that the September day of the German advance was the beginning of a 30-day period when the probability of dry weather reaches the highest level of the year in the vicinity of that Polish city.

This Warsaw weather graph further confirmed the belief of the soil conservation scientists in the potential, practical applications of the study, later described in TB 819. They believe it very likely that Axis military experts have been successfully using a similar technique throughout the war.

Blumenstock describes a number of ways in which the study can be made to

serve the practical purposes of agronomists and other workers in the field of soil and water conservation.—MILDRED C. TILLEY, SCS.

Bankhead-Jones labs

THE EDITOR recently visited two of our Bankhead-Jones Laboratories (see *USDA* January 22, p. 3). These were the Regional Swine Breeding Laboratory at Ames, Iowa, and the Regional Poultry Research Laboratory at East Lansing, Mich. W. A. Craft is Director of the former, Berley Winton of the latter.

Though we might casually think that we know a lot about raising and feeding hogs, there is a great deal we can learn. The process can be speeded up genetically. It may even become possible to breed for greater vigor and improved prolificacy, as well as for better bacon quality, more lean meat, coat smoothness, economy in the use of feed in making meat, freedom from excess fat, and so on. Faulty genes which cause defects can be uncovered and perhaps eliminated.

Broadly speaking, the swine lab is trying to do the same thing for swine that the hybrid corn breeders have done for corn. Inbred lines are being developed within pure breeds and also from stock formed by crossing two breeds. The principles of genetics employed are the same as with corn, but there are differences in application. For one thing, the development of inbred lines of swine takes much longer.

The raising of hogs is expensive and the swine breeder cannot afford to develop thousands of inbred lines and throw away all but 8 or 10. It is important in this work to use critical selection and a degree of inbreeding that will produce inbred lines of reasonably good performance. It is known that the best inbred lines give the best results in inbred-line crosses.

Though the inbred lines have been in process of development, the lab's workers have uncovered important information on more effective methods of selection and systems of breeding for fixing desirable heredity. The speed of genetic improvement has been thrown into high gear and is in some instances already 10 times as rapid as in the prevailing system of swine breeding. Improved prolificacy, economy of gain, vigor, and conformation can be fixed.

Chickens

The Regional Poultry Research Laboratory is seeking to improve viability in poultry. Its current work is limited to

lymphomatosis, or so-called fowl paralysis. This chicken disease mysteriously entered the U. S. from Europe in 1917. Soon nearly a quarter of the chickens in New England were affected, and the ailment still causes losses amounting to upwards of \$50,000,000. The lab is attacking this problem pathologically, genetically, cytologically, and nutritionally.

Progress is necessarily very slow, because the causative agent and the method of infection are unknown. But it has proved possible to develop resistant and susceptible lines, which indicates the part heredity can play. The fact that highly susceptible lines free from the disease have been developed is also a contribution of great importance to the pathologist in his research. Finally, the work of the pathologists shows that the disease may be carried in the egg, and this also is important.

The East Lansing Laboratory is probably the best equipped in the Nation for the study of lymphomatosis. The extreme precautions taken are often baffling to laymen. Thus, a man may have to change his clothes 64 times a day, because he has to have a special suit to wear when he enters each of the 64 pens under control.

Of course the States cooperate in this project. Trained State personnel can be drawn in when needed. Thus far, the combined scientific attack on lymphomatosis offers much promise of an eventual solution of the problem.

Efficient or inefficient?

ONE OF OUR contemporaries, the Bulletin of Budgetary and Financial Information, issued by the Office of Budget and Finance, in its February 26 number summarized a talk made by Herbert Emmerich, Associate Director of the Public Administration Clearing House, at the Organization and Procedure Conference held in the Department this winter. Here are some of the salient points of the talk:

Wartime administration demands the utmost efficiency but actually makes for inefficiency through subjecting the individual worker to serious personal strains and tensions. These strains result not only from wartime's increased governmental tempo * * * but also from the individual's deadline pressures, shifts in supervisors, post-war job uncertainties, and simply the daily strain of getting to and from work.

Many offices are insensitive to the effects which their work methods have on the people who make the work possible. They do not realize that the employee's physical and mental health and his atti-

tude toward his work are far more important than methods and system.

Emmerich suggested ways to relieve the personal tensions and pressures of wartime administration. Among them are:

Keep operating units as small as possible to lessen the unsettling effects of reorganizations and personnel turnover which may result if the units are built up so large that they have to be torn apart and put together again, every time a program shifts.

Avoid either overassignment or underassignment, both of which are signs of "administrative morbidity." Chronic working overtime is just as inefficient as not having enough to do.

Grant leave as an occasional relief from the 48-hour week, which is too long to work without strain considering the difficulties of transportation, shopping, etc.

Explain organizational and procedural changes clearly to employees, giving all the necessary background and reasons. No manual procedure can catch up with the feeling of resentment resulting from sudden, unexplained changes made coldly and without interpretation.

Employee counseling should be a responsibility of supervisors as well as of personnel experts.

Paper shortage

CHAIRMAN KRUG, of the War Production Board, has written the Department asking for our cooperation in saving all the paper we possibly can. He states that military requirements for paper are now at the highest level of the war and that this has necessitated a drastic cut in allocations for civilian use. Extreme measures will be necessary in order to make the reduced allotments meet even our most essential needs.

In response to Chairman Krug's appeal, the Secretary and the War Food Administrator urge all employees to do everything they can to help. At the office turn back any supplies you don't need, and observe the conservation practices that have previously been suggested. At home make a check to see whether you have any paper that could be turned in for salvage. Keep turning it in regularly. And tell the clerks in the stores not to wrap your purchases.

Thanks, prof.: "I am finding USDA highly readable, informative, and entirely enjoyable," writes Prof. W. C. Libby, head of the Department of Agronomy at the University of Maine.

Brief but important

"Marooned on the rock": The "rock" is Betio (Tarawa). The quotation that follows is from an article by Edgar L. Jones in *Atlantic Monthly* for April. Having discussed the insects on Betio, Jones continues: "The man on Tarawa gladly would trade all the insects on the island for one swarm of bees. Usually taken for granted, a bee is the gardener's primary handyman. The men would like to grow fresh vegetables to supplement their canned diet, but pollination by hand is a long and uncertain process. Some of the men, using hand pollination, have grown melons, radishes, lettuce, and turnips in small quantities. With water scarce, large-scale farming in the sandy soil would be impossible, even if there were bees on the island." The cockroaches on Betio are said to be able to open a can of meat with their hind legs, however.

Malthus redivivus: "It serves no useful purpose to overestimate the world's resources, our ability to increase agricultural production, and our capacity to modernize the entire world. There is no justification for denying the validity of the Malthusian law and no excuse for misrepresenting the biological factors in the control of the birth rate. Optimism based largely upon pious hopes can lead only to greater difficulties in the solution of demographic problems." This is the final paragraph of a thought-provoking letter written to *Science* (March 30, pp. 325-6) by Karl Sax, of Harvard. By all means read all of it, if you are too easily convinced that it will be a cinch to enable our world to produce sufficient for a considerably larger global population.

R. E. Buchanan: Read his *Microbial Metabolism and Agriculture* in *Science* for April 6. Director Buchanan, of Iowa Agricultural Experiment Station at Ames, is a distinguished bacteriologist and has long been a friend of L. A. Rogers, also an outstanding bacteriologist, who retired from the Bureau of Dairy Industry a couple of years ago.

Due credit: During an Extension staff conference which had the Extension Service Review under discussion, Miss Gertrude L. Warren, Organization, 4-H Club Work, said this about Editor Clara Bailey: "It is a pleasure for me to tell this group how much we in 4-H Club work appreciate the contribution which Miss Bailey makes to the 4-H program. For the last two years we have felt especially indebted to her for the splendid presentation of 4-H Club work which she made at the two luncheons given for the editors and writers of various magazines who have their headquarters in New York City. As one editor remarked to me, 'Clara Bailey is not only a genius in the presentation of your program, she is an artist in the way she portrays ideas that tend to live in one's memory!'"

Surplus property: General Departmental Circular No. 31, Supplement 1, April 7, clarifies the responsibilities of the Director of Finance for matters relating to the acquisition, transfer, and disposal of surplus property on behalf of USDA-WFA. Request this circular through your agency channels.

Uncle Sam Unwhiskered: This is the title of an article discussing the pros and cons of bureaucracy, in the *American Journal of Sociology* for January. The *USDA* editor, who wrote it, has a small number of reprints left.

Wood expert retires: Dr. Warren D. Brush, Forest Service wood expert, whose studies of wood structure, properties, and uses contrib-

uted to more effective wood utilization in both the first and present world wars, retired March 31 after 37 years in Government service. During World War I, Dr. Brush performed valuable service on the production and use of black walnut for gun stocks and airplane propellers. His wide knowledge of foreign woods, such as mahogany, teak, and balsa, has been of special service in World War II. Among his accomplishments have been collection of data as a basis for the grading of southern pine structural timber and statistical studies on the amount and kinds of wood used by various industries. As a consulting expert, he aided many Government agencies on problems of wood utilization and specifications. A native of Ohio, Dr. Brush graduated from Baldwin University at Berea, Ohio, and obtained advanced degrees from the University of Michigan and American University. He entered FS in 1908.

Morale building: Personnel Director Reid's memorandum of March 30 (P-511) announced a morale-building program for Washington and field employees. An employee activities questionnaire (which might be used as a model for field employees) is being distributed to all Washington employees. The editor would like to add one question to it: "Do you regularly read *USDA* and what do you think of it?" Since this query does not appear on the questionnaire, you can answer directly, addressing T. Swann Harding, Office of Information.

Research dividends: V. R. Gardner, Director of the Michigan Agricultural Experiment Station, says that Congress now makes \$163,000 a year available for research in agriculture and related subjects in his State. State appropriations run about \$300,000 annually. As Michigan farm production is valued at \$500,000,000 a year, only one-tenth of 1 percent of this is spent on research. But, of 230 research projects under way, a mere half dozen, costing no more than \$76,000 all told, have increased Michigan farm income by \$16,370,000, a return 215 times the investment. Hence the people of Michigan really get their State College at East Lansing, plus the experiment station, free, for these institutions repay the taxpayers many times over, for all money expended upon them, through successful research.

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FOR MAY 28, 1945

Food

LIKE all rumors, the many rumors you have heard about acute food shortages have been exaggerated. Just remember our human tendency to think and speak in superlatives, make the usual discounts, and you'll come closer to the facts.

Prospects are that food production in the U. S. in 1945 may not be as great as in 1944. It may, in fact, be 5 or 10 percent below 1944. Nevertheless, U. S. food supplies would still be 25 or 30 percent above those of the five pre-war years. Since the U. S. entered the war, it has more than doubled its production of many important items, thus making it possible to provide the best and most abundant diet in the world for its military forces, while at the same time very adequately providing for the civilian economy and the substantial shipments to our Allies. A decent U. S. diet will be maintained. Our food supply is adequate to keep us healthy and vigorous, even though we shall have to make some adjustments in particular foods.

Foods that will be particularly short in relation to demand in many sections of the country include (you guessed it) meat, poultry, butter, canned fish, and canned fruits. In some areas potatoes and rice are expected to be short of civilian demand. Rationed distribution of short supplies of canned vegetables, cheese, lard, and other fats and oils will continue. One result of rationing has been to change the distribution of food so that while some people eat better than they did before the war, others do not eat so well.

Increased Victory Garden production and home canning are urgently needed to supplement commercial food supplies.

Such is the present picture. What, then, of the more distant future? As Chief Tolley, of the Bureau of Agricultural Economics, said recently: "Modern science has made entirely possible the production of ample food for all people of the world. Surely we have the eco-

nomic and social inventiveness to find ways of using abundance so as to promote the welfare of both those who consume food and those who produce it."

World view

At this time there are world-wide shortages of several food products which were in habitual market surplus before the war. There have been marked shifts in food production in many countries during the war. Some, under blockade, have been denied their usual imports, and have had to reduce livestock production drastically and use more crops for human food. This increased their domestic supply of food in terms of calories, but greatly reduced the animal fats and proteins in their diet.

In North and South America, however, emphasis has been placed on increasing the output of livestock products and edible oils. In the United Kingdom, production of cereals and vegetables has increased, but the output of meat and eggs has declined. Other parts of the world have been occupied or ravaged by war, sharply reducing food production, the declines there nearly offsetting increased production elsewhere.

But agriculture has marked recuperative powers. This was demonstrated in the first World War. According to a League of Nations report, agricultural production in European countries in 1919 was only about 70 percent that of 1909-13, but by 1925 it had recovered to pre-war levels. After that war, also, many countries which had expanded production in response to wartime needs maintained their high-level output regardless of price declines. But, despite food surpluses in many areas before World War II, large proportions of the world's population were undernourished.

That is the central problem of future world food production and distribution. The proposed United Nations Food and Agriculture Organization will aid in solving post-war food problems by seeking to attain four major objectives: To raise nutrition levels and living standards of

all people in participating nations; to secure improved efficiency in the production of food and agricultural commodities; to better the condition of all rural populations; and to help expand world economy.

Forty years a dairyman

FEW MEN associated with the dairy industry have spent a longer time and greater energy singing the praises of the lacteal bovine and her products than O. E. Reed, Chief of the Bureau of Dairy Industry since 1928. An earthy fellow, easily approachable, always ready to talk with equal enthusiasm and authority about the dairy industry, bear hunting, his Victory Garden, his fine family, the flora and fauna of Rock Creek Park in Washington, or the time the rabbit threatened to bite him in western Kansas (he shot in self-defense)—he has had a long and distinguished scientific career.

Born in Fayette, Mo., in 1885, and reared on a farm nearby, he began his long trek down the cow paths to his present position when he first heard the call of the University of Missouri's great dairy leader and thinker, C. H. Eckles. In the 40 or more years since then, his hope and enthusiasm for a better rural America have been linked inseparably with his faith in the dairy cow. (Facetious people insist that the slogan of his Bureau is, "All that she is she owes to udders.")

As a student in the summer of 1904, Reed had a job in the dairy demonstration barns at the St. Louis World's Fair. Here he worked under the expert guidance of E. H. Farrington, of Wisconsin University, and became personally acquainted with the great producing cows of that day who were trying to outdo one another in a contest between breeds. Weighing their milk and feed gave him practical insight into the possibilities of building better herds.

Reed worked his way through the University of Missouri in the employment of Dr. Eckles, of the dairy department. He later taught at various universities, purchased cattle for the French in the U. S. during the summer of 1919, and became professor of dairy husbandry at Michigan State where he remained from 1921 till 1928. He has been vice president and president of the American Dairy Science Association and official U. S. delegate to several international dairy congresses; is an active Rotarian and a good churchman.

As Chief of BDI, Reed supervises experimental work with nearly a thousand head of cattle at the Beltsville Research Center and seven regional field stations. He looks after the research work on all

the varied problems relating to milk, its products, and its separate constituents. During the war he has devoted considerable time to representing the American Dairy Science Association on the National Research Council.

Cause for concern

IN THE FACE of acute wartime need for wood, a long-established sawmill in Michigan closed for lack of timber in the summer of 1943. Similarly, in the summer of 1944, another large mill in Wisconsin cut its last log and boarded up its windows and doors.

In the highly productive Champlain and Hudson Valley sections of New York, hardly any white pine timber of sawlog size remains uncut. The same situation is found in much of the white pine region in Massachusetts and southern New Hampshire. Wholesale liquidation of young timber, which should be the source of sawlogs for decades to come, continues in the Northeast, the South, and the Lake States.

In California, 7 percent of the sawmill capacity is going out of business or is forced to move to new locations each year because of lack of timber. A few months ago it was reported that the entire town of Westwood, Calif., with a population of 5 or 6 thousand people, was being offered for sale. This town depends on a huge sawmill, with timber in sight for only a few more years of operation. In California forests, annual sawtimber growth is only a fifth of the amount cut each year.

In the Puget Sound district of western Washington, 165 sawmills, representing 41 percent of the total plant capacity, do not have sufficient private timber in sight to operate more than 5 years. Public timber will help prolong the life of some of these mills, but drastic retrenchment in lumber output is inevitable.

In the Wenatchee and Chelan district of Washington, the capacity of existing sawmills is twice the sustained-yield cut from public and private forest lands together. Yet annual growth there of ponderosa pine is only half enough to make boxes for the apples grown in that district.

These examples of acute forest depletion are cited in the latest annual report of the Chief of the Forest Service. So long as annual timber growth remains so generally below present forest drain, says the report, we cannot look to security in relation to our forest resources. Abandoned mills won't provide many jobs after the war.

What should be done? FS says it is

high time we took positive measures to stop destructive cutting and to increase annual timber growth.

The basic FS conservation program calls for: Nation-wide public regulation of timber cutting and related practices; Federal and State cooperation to facilitate good practices on private forest lands; bringing under public management such forest lands as may not otherwise be given protection and management consistent with the public interest; public forest rehabilitation and improvement on a large scale. Effectuating this program, says FS, will create jobs, sustain industry, and help maintain full employment.—C. E. RANDALL, FS.

61,000 jobs

MORE THAN 61,000 jobs, mostly non-Government, with 5 types of employees in the field of rural electrification, including the Rural Electrification Administration itself—that's the post-war program now being worked out by the REA Veterans Training and Reemployment Committee. The committee hopes that war veterans will land in many of these jobs. It recently issued a mimeographed bulletin breaking down the 5 types of jobs which it considers that rural-electrification activities will help to make possible.

They are: (1) REA administrative offices, 1,600 jobs; (2) REA borrowers, 12,000 jobs; (3) electric-line construction-contract work, 15,000 jobs; (4) wiring- and plumbing-contract work, 29,000 jobs; and (5) consulting engineers, 4,000 jobs. Jobs in all categories except the first are to be created in industry as a result of REA activities.

The veterans' group, a subcommittee of the USDA Interbureau Committee on Postwar Programs, is cooperating with the Veterans' Administration in spreading information about job opportunities for war veterans in rural electrification. Acting REA Administrator William J. Neal helped the program along recently by writing all REA borrowers that the Administration will be glad to cooperate with them in filling vacancies. "It is the desire of REA to assist in every possible manner the training and employment of discharged veterans," Mr. Neal concluded.

REA has available at its St. Louis office a circular, Electrified Farms for the G. I.'s, for distribution to veterans, service hospitals, and separation centers. The circular acquaints the returning veteran with the possibilities of electrified farming and farm living.

Consult the experts

WILL THE United States, with its abundant agricultural resources and advances in farming technique, produce more food than its people need after the war? Can Russia produce enough food (about 80 percent more than at present) to satisfy its rapidly growing population and rising standard of living? Can India, with its high birth rate and primitive agricultural methods, increase food supplies enough to improve the diets of its people? How can people be educated to choose diets that are nutritionally adequate?

In *Food for the World*, a book edited by Theodore W. Schultz, 22 experts in economics, nutrition, population, and agriculture work together to find the answers. Department contributors are H. R. Tolley, Chief, Bureau of Agricultural Economics, and Margaret Reid, Chief, Division of Family Economics, Bureau of Human Nutrition and Home Economics. Paul H. Appleby, former Under Secretary, has a chapter on new horizons for food and agriculture.—MILDRED BENTON, *Library*.

Emergency do's and don't's

SOME DAY you will get sick or be unavoidably and unexpectedly detained from getting to work. That's bound to happen eventually, even to *you*. In that case your work should be so left that some colleague or the boss could take over and carry on without delay caused by faulty instructions or by your failure to leave clear records of what has so far gone on.

So keep your records clear and legible at all times. Try not to collect trash either. Some people's desks are littered with little notations and other items regarding matters long since attended. They should have gone into the wastebasket long ago. Some of us (like squirrels) collect papers, pamphlets, mimeographed matter, and so on, that we intend to look at some time, but never do.

It almost all might as well be chucked. For, unless we form the habit of giving such things attention within a few days or a week, unless we promptly note, abstract, and file what we want and throw away the rest, we shall never do it. The older we grow, the worse habits we tend to form about such things, too.

Above all, if you lock your desk, lock in no official work. It is justifiable to lock up personal belongings if you wish, but locking up official work can cause difficulty or delay if you suddenly get ill or have to go to your great-grandfather's wedding. Nobody wants to steal official

work. It should be locked up only when confidential, and then someone else also should have access to the key.

The editor will never forget the time he locked up some things carefully—and then cheerfully lost the key—and “what a revolting development that was,” as Chester A. Riley puts it on Sunday night.

“Corn”

IN HIS dim, historical past, the editor was much troubled by such Biblical expressions as “a grain of mustard seed” and “a corn of wheat.” It had not occurred to him that a “corn” is really a small, hard particle of anything, like a corn of powder or, for that matter, corns of salt—the grains or granules that make corned beef so appealing to “father.”

Since the maize plant does produce a hard, grainlike seed, this could be called a “corn,” and it no doubt was. Possibly if our restaurants advertised “maize on the cob,” even the British would understand better what we are eating when we consume this delicacy, than when we use the generic term “corn,” merely meaning “grain on the cob” and not saying what kind.

The word “corn” is from the Saxon corn (Teutonic *korh*) and is often used in a particular country to designate the cereal most extensively consumed there as human food. When you say “corn” to the Englishman, he thinks you’re talking about wheat; say “corn” to the Scotchman, and he kens you’re talking about oats. In North Africa barley is meant, and so on.

For that matter the maize plant, to which we have applied the name “corn,” is a curious thing in its own quaint way. It was being widely grown by American Indians when Europeans first showed up over here. Furthermore, it had been highly developed and varietal selections had gone a long, long way, for the Indians already had every kind of corn we know today, including pod corn, popcorn, flint, dent, and red, white, and blue varieties, not to mention striped and black.

Mysterious origin

The Hopi Indians of Arizona knew and grew 80 varieties of corn before the white man arrived here. By selection and crossing, early man had developed maize from some ancient seed-bearing grass. Today, maize is so highly civilized that it can neither compete against weeds unassisted by man nor survive at all in the wild state. It has become corn!

What was the “ancient seed-bearing grass” that gave rise to corn? That’s

the \$64 question. Howard Zahniser, in his rousing poem, “America Grows Corn,” puts it this way:

“Columbus discovered America in 1492,
Columbus discovered corn.

Cortez marched on the Aztecs

And he ate corn.

Pizarro pillaged Peru in 1532.

And the Incas were harvesting corn.

But no man knew

Where the wild corn grew.

And no man knows

Where the wild corn grows.”

Was this ancient seed-bearing grass teosinte? Perhaps. Teosinte is very closely related to corn, even though the two species may not look much alike. Scientists estimate that it would take about 20,000 years of purposeful work to develop the corn plant as we know it, so somebody was handy and industrious at that sort of thing long, long before we foreigners showed up on this continent.

Last legislative act

THE LAST legislative act of President Roosevelt was the signing of a bill extending the life and expanding the borrowing power of the Commodity Credit Corporation.

The new law (1) continues the Corporation through June 30, 1947, (2) increases its borrowing power to \$4,750,000,000, (3) specifies the conditions under which the commodities owned by the Corporation may be sold, and (4) authorizes the amounts of dairy-feed payments and other subsidies designed to stimulate production and hold the line on retail prices. The act is Public Law 30, Seventy-ninth Congress.

Ten ways to annoy your boss

THE FOLLOWING is a sequel to the item, Ten ways to annoy your stenographer (USDA February 19, p. 6). A woman secretary sent it in.

(1) Come in from 10 to 30 minutes late every morning—it causes the boss to notice any new garment you have on (jewelry, etc.), note a 19th century hair-do (revised), and get full benefit from the aroma of your new perfume—a delayed arrival is always effective.

(2) A nice juicy “cud” of gum adds to a stenographer’s well-groomed, well-bred appearance, gives her an air of savoir faire, and is an ideal outlet for pent-up nerves.

(3) Keep big ledgers, files, notebooks, and stacks of important looking papers on your desk. Assume a meditative expression—then proceed with your personal correspondence.

(4) Give all your friends your business telephone and insist that they call you at this number. Then while the boss is working on some tedious, meticulous task, you can be sure that you too lend the impression

that you are intensely engrossed—rather than just sitting idly drumming on your desk. The minute he leaves the office, ask for a line and take care of your social and domestic affairs—he might get caught in a conference and be out for an hour or so.

(5) When using a phone in the office with several other people, never whisper. Talk in a tone that will be comfortably audible all over the room.

(6) If you are short of annual leave, just call in that you have a headache, then go back to bed. Later in the day you can attend an unrationed shoe sale, get the long-needed permanent, etc., but be careful not to get on the street before five.

(7) When taking dictation and the boss is trying to phrase his letter in a scholarly fashion, work on your finger nails while waiting for the next phrase, chew your gum loudly, and with legs crossed above the knees shake the free foot in rhythm with the gum. When you see that he is really having trouble with the composition, gently hum some popular juke-box tune; do not cease chewing the gum or shaking the foot, but the rhythm may be altered to suit the tune. You cannot fail to impress him by now and then suggesting suitable words or phrases for the sentence that seems to fail him despite his efforts.

(8) When transcribing your notes, don’t stop to look up a word you are in doubt about until you have finished the letter. You might be right and much time and effort can thus be saved. You may use your own initiative in substituting words and phraseology that seem more fitting than those dictated. By doing this you can further impress the boss that you are irreplaceable because of your vocabulary.

(9) When you have a letter in your notebook that necessitates a speedy dispatch at the time all the others are going out for a coke, let the letter wait and go with the crowd. Your morale must be kept in trim.

(10) Keep in close touch with your watch or the clock in the adjoining office. At about 20 minutes before quitting time, clear your desk, cover your typewriter, powder your nose, primp your hair, put on your gloves, indicate by a telephone conversation that you have an important engagement clear across town at a few minutes after quitting time, and assume a defiant expression when it appears that the boss may have a last-minute letter. This will teach him a lesson and the next day he will do his dictating early in the day.

This answer your question?

MANY INQUIRIES have been received as to whether former extension workers, now employed in the Department, may have their employment with the Extension Service credited for retirement purposes. The answer is yes. Any employee who is under the Civil Service retirement system may receive such credit for all periods of employment during which he held a Federal appointment.

To obtain this credit, it is merely necessary for the employee to execute page 1 of Civil Service Commission Form 3012 and submit it to his personnel officer. After the service has been certified by the appropriate Bureau official, the form will be sent to the Civil Service Commission, which will notify the employee of the amount to be deposited to obtain full credit and of the procedure to be followed.

Farm safety

NATIONAL Farm Safety Week rolls around again, this time July 22-28. It is hoped that farm people will try to avoid getting killed, maimed, and crippled every week and every day in every year, but during this week their attention is called especially to farming as a hazardous occupation.

A mere instance: 3,500 farm people lost their lives last year in fires, which caused the destruction of farm property worth more than \$90,000,000. For each \$10 of gross income, farmers as a class pay out about \$1 as a result of accidents, and everybody knows accidents are worth no such tax on earnings. In 1943, accidents killed 17,200 farm people, nonfatal farm-work injuries totaled 225,000, and a farm house or building caught fire every 15 minutes!

The answers: (1) Hunt out and learn to recognize accident and fire hazards on the farm and in the farm home; (2) correct or remove these hazards whenever possible; (3) find methods of living and working safely with irremovable or uncorrectible hazards.

Brief but important

A timely tip: Although the Washington Star scooped us on this one, the method for conserving butter quoted from the book, *Beekeeping for Profit*, by Addison Webb, is worth repeating for the benefit of USDAers with jaded appetites. "Mix 20 to 25 percent honey with butter. Blend well while soft, then place in refrigerator. This makes a delicious spread for bread and sandwiches, waffles, and pancakes."

From F. H. Jeter, N. C. Extension Editor: "USDA is one Government publication that folks can read and enjoy. When I stop everything to look it over, and then lay it aside for future reading, you may be sure that it is interesting because you know the multitude of material which comes to the average Extension Editor's desk. I want to congratulate you on the punch and vigor you are putting into the publication, and to say that you are doing a good job in causing us folks in the field to become more familiar with the operations of the Department of Agriculture and the various agencies."

Pleasant Valley: Louis Bromfield, famous author turned soil conservationist, reports on his experiment in merging and restoring four run-down Ohio farms in his latest book, *Pleasant Valley*. The preface states that "the book is not written for agricultural experts although they may find in it observations of interest."

How to write well: "They Understand Not One Another's Speech" is the title of the leading paper presented by our editor last year at the annual meeting of the American Association of Cereal Chemists. He has a few reprints in case you are a writer—or want to be. The paper was one of six in a symposium of writing. For the entire symposium see Special Reprint Comprising Writing Symposium Reports, Transactions American Association of Cereal Chemists, Vol. III, No. 2, January 1945.

Forest memorial: Forests as living memorials to those who lost their lives in the war are receiving more and more attention, according to the Forest Service, which is getting numerous inquiries. Planting memorial trees is by no means a new idea. An individual tree, however, may grow poorly or fail to survive. Even if successfully established, it will eventually grow old and die. But forests can live forever. Properly protected and managed, they can serve many useful purposes—recreation, watershed protection, harboring of wildlife, and yielding of continuing crops of timber. FS has a leaflet, *Memorial Forests*, giving suggestions for establishing and maintaining community or memorial forests; it's available on request from the FS Division of Information and Education.

USDA documents: These mimeographed documents, brought up to date as of May 1, are available in limited quantities: No. 1, *Structure, Functions, and Origins of the Department of Agriculture and Its Constituent Agencies* (about 18 pp.); No. 2, *Department of Agriculture, War Food Administration, and Constituent Agencies* (similar to No. 1 but about 65 pp.); No. 3, *Abridged Chronology of Agriculture's Part in the War*; No. 4, *Condensed History of the U. S. Department of Agriculture*; No. 5, *Current List of Top Officials of the Department of Agriculture and War Food Administration* (Abridged); No. 6, *Important Recent Achievements of Department of Agriculture Scientists*; No. 7, *Outstanding Scientific Publications by USDA Research Workers Issued by the Department of Agriculture*; No. 8, *Abridged List of Federal Laws Applicable to Agriculture*; No. 9, *Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date* (Commissioners of Patents, Superintendents of Agriculture, Commissioners of Agriculture, and Secretaries of Agriculture); No. 10, *Our Department Scientists*. We maintain no mailing list on these documents. Just write in or phone when you think revisions have been made. We try to keep them current, though that is an almost impossible job.

T. C. I., farmer: Did you ever hear of a steel and railroad corporation going into the farming business? You might like to glance over the article, *T. C. I. on the Farm*, in *Business Week* for March 10 (pp. 90-91). It tells how the Tennessee Coal, Iron, and R. R. Co. works in cooperation with agricultural colleges, Extension agents, and others to aid southern farmers in diversifying crops and finding better markets. The company has farm agents of its own, too. Its venture is not wholly altruistic, as you may guess, but is intelligent and interesting.

Canadian FCA? Canada has just made the first quarter of a billion dollars available to its 700,000 farmers for low-interest, speedily negotiable bank loans, by passage of the *Farm Improvement Loan Act*. This is Ottawa's first effort to create a system of short-term immediate credit for farmers' special needs. The Canadian Government guarantees the banks against losses up to 10 percent of the amount loaned. The maximum interest rate is 5 percent, no service or financing charges. Loans are available to any money-making farm venture. Farm implementers enter Canada duty free and any advantages which accrue to Canadian implement makers under the new loans will apply to our firms also.

Chile: Look up James Parker Wilson's article in *Agriculture in the Americas* for April and read about Chile, which has California climate in reverse. Chile's spring months are September to November, and what that can mean in the way of a noncompetitive supply of perishable fruits and vegetables to the U. S. after the war ends is plenty.

Information to veterans: The Office of Information has prepared and is sending out—with the cooperation of Washington representatives of various branches of the armed forces and the Veterans' Administration—about 2,500 kits containing samples of available agricultural information. They are going to separation centers, hospitals, libraries, and vocational guidance and retraining centers of the Army, Navy, Air Forces, and Veterans' Administration. About a thousand spots in the continental United States and overseas will be covered. Accompanying each kit will be a supply of order blanks on which the veteran or serviceman can order from the Department, by simply making a check mark, any item or group of items he may want.

Honored: H. Dean Cochran, Chief of the Forest Service's Division of Personnel, received an honorary doctor of science degree from Colorado A. & M. College April 20. Cochran earned his master's degree in forestry at this college in 1920, and began his professional career in the national forests of Colorado. He served as forest inspector and assistant regional forester at the Denver office of FS, as assistant director of the Prairie States Forestry (Shelterbelt) Project, and FS liaison officer with the War Department during the Civilian Conservation Corps program. He was called to Washington to head up FS personnel work in 1942.

Counting profits: Research on the oil-insecticide treatment of sweet corn to control the earworm cost approximately \$30,000; it saves 60 to 85 percent of the farmer's infested crop when properly used. Development of methods of dehydrating meat cost about \$160,000 and so far has had a proved monetary value of \$800,000. It cost about \$5,000 to find an effective drug treatment for fluke disease of cattle; this discovery can be used to prevent most of the annual loss of \$200,000 from this cause. It cost a mere \$3,400 to find a new way of dehydrating cheese, suitable for both small- and large-scale operators and at greatly reduced costs. Keep up with Agricultural Research Administration's Research Achievement Sheets and find out still more about the huge dividends paid by investments in research.

May 28, 1945

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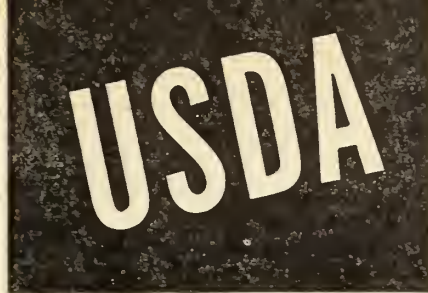
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FOR JUNE 11, 1945

CLINTON P. ANDERSON, 49-year-old New Mexico Congressman, has been appointed Secretary of Agriculture, taking office July 1. Representative Anderson was chairman of the special House committee which investigated food shortages. He was born in South Dakota and owns farms in that State and in New Mexico. He was elected to Congress in 1941.

Secretary Wickard transmitted his resignation April 17 and, replying May 23, President Truman accepted it with regret. He also wrote: "I also wish to thank you for consenting to remain in the Government as Administrator of the Rural Electrification Administration."

War Food Administrator Marvin Jones transmitted his resignation May 22, asking to return to his work in the Court of Claims. He also wrote: "In this connection I suggest for your consideration the advisability of merging the War Food Administration and the Department of Agriculture."

CCC

AS YOU ARE doubtless aware, CCC stands for Commodity Credit Corporation, insofar as USDA-WFA is concerned. Set up as an independent agency October 17, 1933, CCC became part of USDA under Reorganization Plan I, effective August 7, 1939. The Executive Orders of March 26 and April 19, 1943, which established WFA, made CCC a part thereof.

As a result of a consolidation (effective last January) of activities formerly carried on by CCC and WFA's Office of Distribution, the Corporation now both finances and administers all price-support and procurement programs for WFA. Its personnel numbers more than 5,000 in Washington and the field—most of it in the field.

CCC operates under a President, Frank Hancock, who is also head of Farm Security Administration, and two Vice Presidents. These are Carl C. Farrington, who also functions as Director of Basic Commodities, and Richard W. Maycock, who also functions as Director of Supply.

The Corporation was established originally under authority of the National Industrial Recovery Act, for which its present President voted as a Member of

Congress. It has been a vital force in improving the economic condition of farmers and in stimulating our great wartime increase in food production. It makes loans on basic commodities, such as wheat, cotton, corn, and tobacco, or actually buys them in its price-support operations. As a result of its lending operations, CCC is also involved in problems of transportation, storage, and service.

These operations served to accumulate the reserves of grain and other commodities that made possible our large wartime increase in the production of high-protein foods such as milk, eggs, and meat. After we got into the war, CCC, following a mandate of Congress, extended its price supports to include loan, purchase, and other operations on a number of nonbasic commodities. This fostered still further wartime expansion of farm production by guaranteeing farmers a fair return, thus placing them on a footing with wartime industry.

Programs and results

The cost of CCC's entire program has been small compared with other wartime expenditures by the Government. The return has been large. For we have been able to step up wartime food and fiber production greatly above 1935-39, while at the same time protecting consumers against inflationary prices. This relative price stability has been an invaluable wartime boon.

As now constituted, CCC finances and administers all price-support programs of WFA for basic crops, the so-called Steagall commodities, and commodities such as wool, naval stores, sugar beets, sugarcane, fruits and vegetables for processing, barley, grain sorghums, rye, and vegetable seeds. These operations include loans to farmers, purchase of cotton, tobacco, grains, and other farm products, procurement for lend-lease and other Government purchases, transportation and storage, and the sale of surplus commodities within the limits of congressional authorization.

Consolidations within CCC have made

for more efficient and economical operation of WFA's price-support and food-procurement programs. This agency buys food for our Allies, U. S. Territories, UNRRA, and the Red Cross. Other activities include administration of school-lunch and direct-distribution programs, and cooperation with management and labor on industrial-feeding problems.

The Corporation is managed by a Board of Directors composed of the War Food Administrator (as chairman), the Secretary of Agriculture, one Assistant War Food Administrator, the CCC President and Vice Presidents, the Chief of the Agricultural Adjustment Agency, the Director of Marketing Services, and the Director of Price. The Solicitor and the Director of Finance serve as legal and financial advisers to the Board. The principal office of CCC is in Washington, with regional offices at Chicago, Minneapolis, New York, Portland, Oreg., Kansas City, Mo., New Orleans, Atlanta, Dallas, and San Francisco.

President Truman—farmer

FROM Roderick Turnbull, news editor of the Kansas City Weekly Star, was received a paragraph in reply to an inquiry requesting data on the farm life of President Harry Truman. As Kansas City is the old stamping ground of the Chief Executive, it seems a reliable source of information. Here is what Turnbull sent:

The Trumans lived in Independence when "Harry" was a small boy and he started school there. Later the family moved to the farm at Grandview, which, like Independence, is in Jackson County, but Harry Truman continued in school in Independence, living with relatives. He would return to the farm on week ends and in the summer. He was graduated in 1901 from high school and worked at various jobs until 1906 when he went to the farm to help operate it with his father. He stayed on the farm until he entered the service for World War I. In the meantime, he had had some other jobs, like road overseer, but the farm was his home. He was interested in Farm Bureau and boys' and girls' 4-H Club work, being president of the Washington township unit of the Jackson County Farm Bureau in 1913. He was instrumental in collecting about \$300, which was used for scholarships for club boys and to send them to the State 4-H Club meeting in Columbia, Mo., in 1914.

Apparently his farm work was just the kind any man would do around a general farm. He is proud also of having helped to organize one of the first 4-H Clubs in western Missouri.

Brevity: The St. Louis Globe-Democrat rises to remark: "The story of the creation is told in Genesis in 400 words. The world's greatest moral code—the Ten Commandments—contains only 297 words. Lincoln's immortal Gettysburg address is but 266 words in length. The Declaration of Independence required only 1,321 words to set up a new concept of freedom." Thanks. Comment superfluous.

Head supply man

RICHARD W. MAYCOCK is now Vice President and Director of Supply of the Commodity Credit Corporation, taking over the work of Lt. Col. Ralph W. Olmstead, who was reassigned by the Army. Mr. Maycock is a native of Provo, Utah. Though he is still a young man, only 34 years old, he has had a wealth of experience both in the food trade business and in Government administration.

He grew up in the grocery business. His father, who died several years ago, was successively manager of the Utah Wholesale Grocery Co., at Provo, owner-operator of the Maycock Brokerage Co., of Salt Lake City; and manager of the American Wholesale Grocery Co., of Seattle, Wash.

"Dick" received his early schooling in Salt Lake City and in 1928 entered the University of Utah. The next spring he went to Seattle, where he was employed by the American Wholesale Grocery Co. and later by the Rainier Food Co. During this period he also attended the University of Washington.

In August 1930, he obtained an appointment with the Treasury Department in Washington, D. C., where he soon moved up to assistant to the Special Auditor to the Comptroller of Currency. Meanwhile he had entered George Washington University night school, from which he was graduated "with distinction" with an A. B. degree in business administration in February 1934.

In September of 1934, Mr. Maycock transferred to the Federal Housing Administration, and just a year later went to Puerto Rico for the P. R. Reconstruction Administration as chief of Project Applications and Field Investigations. Subsequently he became chief of the Division of Finance and executive assistant to the Assistant Administrator. In the latter capacity, he was charged with much of the responsibility for the general administration of the PRRA program.

In recent years

In April 1940, Mr. Maycock transferred to the Bureau of the Budget and moved back to Washington from Puerto Rico with his wife (formerly Miss Mary Elise Skye), whom he met and married in San Juan, and their son, Richard W., Jr. Mr. Maycock was assigned to the Division of Administrative Management, where he directed work having to do with ways and means of improving administrative, fiscal, and operational functions in Government agencies.

He transferred to the USDA Office of Budget and Finance in December 1940. In the spring of 1943 he was named Assistant Director of Finance, sharing the responsibility for the management of the budgetary and financial affairs of the Department.

In June 1944, he was commissioned a lieutenant in the U.S. Coast Guard. After 6 months of service, he was released from the Coast Guard at the request of War Food Administrator Jones to become Treasurer of CCC, where he was responsible for funds in connection with loans, purchases, price-support programs, and other CCC fiscal matters.

Mr. Maycock was named to his new job May 1. As Director of CCC's Office of Supply, he has charge of the purchase of food and related agricultural products for the various supply programs of WFA, including Lend-Lease, Red Cross, Caribbean and U.S. Territories, sale of foods no longer needed to meet war requirements and the operations of various price-support, school-lunch, direct-distribution, industrial feeding, and other programs.

The job is a big one, but Dick has what it takes.—MILT MANGUM, OS.

Our seal and flag

THOUGH the USDA was established by an act of Congress signed by President Lincoln May 15, 1862, it was not immediately an independent Government department. It was headed by a Commissioner of Agriculture who did not sit in the Cabinet. He became a member of the Cabinet, however, when President Cleveland approved an act of Congress February 11, 1889, making the USDA an executive department.

By this time the USDA needed an official seal, and an act of August 8, 1894, specified that it supply the deficiency. Discussion and investigation were undertaken at once. Secretary J. Sterling Morton took great personal interest in the matter. A. H. Baldwin, an artist employed in our plant work, drew a design which, after criticism by Bailey, Banks & Biddle of Philadelphia, was approved.

Secretary Morton provided a description of the seal (in heraldic terms, which we shall mercifully spare you) in a proclamation dated June 21, 1895. For our purposes it consists of a shock of corn and a left-handed (yes, *left-handed*—ask Secretary Wickard, who knows, or see USDA June 12, 1944, p. 4) "plough"—though Secretary Morton did not call it a "plow."

Its inscription reads: "United States Department of Agriculture" and "1862.

Agriculture is the Foundation of Manufacture and Commerce. 1889." Finally we read, "A diapered background of 44 stars (argent) for the States of the Union." Strict rules govern the use of the seal and also forbid its reproduction in off-size facsimile, a rule we once were breaking in *USDA*. So we deleted the seal and nobody ever asked where it went.

How we got our flag

Because all executive departments have flags, USDA needed one. So Plant and Operations sought advice from the Exhibits Section, then in Extension Service, now in Information. Their artist, Paul P. Noller, developed a design in which the seal appeared in the center on a blue background. Then he consulted with experts in the War Department—authorities on heraldic matters—who suggested the inclusion of four stars, one at each corner of the flag.

These stars appear on the President's flag and indicate his top civilian rank as Commander in Chief of the Army and Navy, or did at that time. On our Secretary's flag, they symbolize the possibility of his elevation to the Presidency of the United States, in the event of a vacancy and in his proper order of succession, which is rather far down the line.

Left-handed plows were in common use in 1894. In fact, records show that the best farmers used them, especially in Virginia, Maryland, Delaware, West Virginia, and parts of Pennsylvania and of other States. Many farmers then said a high-class farmer would use only a left-handed plow because he did better work with it. Such plows are still used in some places, and Secretary Wickard used one in his youth in Indiana.

Veteran agriculturist

CHARLES H. ALVORD, Administrative Officer of the Southern Division, Agricultural Adjustment Agency, retired April 30 after 25 years of service in the Department. He had been with the AAA since its inception in 1933.

A graduate of Michigan State College in 1895, Mr. Alvord later became the first Dean of Agriculture at Texas A. & M. College. He afterwards helped to plan the construction of the Texas AAA Administration Building on the campus of the college—one of the finest AAA buildings in the country. In 1911 he was put in charge of the agricultural development and colonization of the 200,000-acre Taft Ranch in southwest Texas.

In 1917 Mr. Alvord came to Washington to join Extension Service, and in 1925

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became Texas State Extension Director. From 1930 to 1933 he was regional representative and cotton-marketing expert for the Federal Farm Board in Washington. Then in 1933 he joined the AAA, working with Extension in developing the field organization for administration of the AAA act.

Itinerant farm evangel

HE TRAVELED over 10,000 miles in the interior of West Africa, talking with natives in their market places. He sang to them in meetings, coddled their children on his knee, and joined their tribes. He wore their costumes, studied their agricultural-production methods, and investigated their nutritional standards.

Who was he? Thomas N. Campbell, veteran USDA Extension field agent, who returned to the U. S. a few weeks ago by way of London.

Mr. Campbell was loaned to the General Education Board by the Department to serve on a three-person mission which has just completed a 6-month education survey of West Africa. The other members of the mission were Dr. Jackson Davis, associate director of GEB, and Miss Margaret Wrong, of Britain. They visited Liberia, Sierra Leone, Belgian Congo, Nigeria, French Cameroon, and Gold Coast to find out what techniques of mass education could be adapted to African conditions.

When Mr. Campbell returned, he called on Secretary Wickard to tell him about the trip. Among other things, he suggested to the Secretary how the health and living standards of the African people could be raised. He pointed out that the Africans could improve themselves if given adequate assistance in the way of tools, agricultural technicians, nurses, doctors, and guidance in modern farming practices. Said he, "Africa is rich in undeveloped human and natural resources."

Mule-power education

Mr. Campbell believes that movable schools similar to the one he operated out of Tuskegee nearly 40 years ago could be adapted to African conditions. This school on wheels was designed by Dr. George Washington Carver at the request of Drs. Seaman A. Knapp and Booker T. Washington. It was equipped with tools and facilities for giving practical demonstrations in modern farming methods, homemaking, and health improvement.

It was an early September morning in 1906 that Campbell, a tall, lanky, north Georgia farm boy, who had just earned

his way through Tuskegee by driving Booker Washington's carriage, climbed aboard one of the Nation's first schools on wheels, caught the reins of the two-mule-powered omnibus, waved goodbye to Dr. Carver and Dr. Washington, and drove off to carry education to the doors of the colored farm people of Alabama.

Mr. Campbell envisions scores of movable schools in Africa, staffed by trained agriculturists, nurses, and home economists, winding their way along the narrow trails from village to village, carrying education and health to the people. Speaking before the agricultural mission luncheon in New York on May 1, he outlined a plan for establishing a chain of such schools in West Africa, and urged the organization to support it as a means of helping to bring freedom from want to this area of the world.—SHERMAN BRISCOE, INF.

Colonel Buie, OL

WHEN USDA-WFA's only general—Brig. Gen. Philip G. Bruton—returned recently to active duty with the Corps of Engineers, another Army officer stepped into his job as Director of the Office of Labor.

The new Director is Col. Wilson R. Buie, a native son of South Carolina, an alumnus of The Citadel, "the West Point of the South," and a civil engineer for 30 years before the war. Colonel Buie is not new to WFA, however. He has been on loan from the Army to WFA since May 1943 and had been serving as Assistant Director of OL.

One of Colonel Buie's chief responsibilities is the foreign-labor phase of the farm-labor program. This involves recruiting many thousands of workers from Mexico, Newfoundland, and the British West Indies; contracting with them to work on farms in this country; and contracting with growers for their employment. It also involves providing for their housing, feeding, and medical care.

Colonel Buie feels right at home in this work. "It is essentially what I have been doing all my life—rounding up men for construction jobs. Only in this case it's for work on farms. There isn't a whole lot of difference," he explains.

The most important thing an engineer has to know, Colonel Buie will tell you, is how to get men and what to do with them after you've got 'em.

Sons of The Citadel

He is no stranger to agriculture, either. He was born 53 years ago in the rural town of Georgetown in Georgetown County, grew up there, and married a farmer's daughter from a neighboring

South Carolina county, Williamsburg. Colonel Buie regards Georgetown as his "real home" and his ambition is to return there to live, fish, and hunt. Quail shooting and deep-sea fishing are his hobbies.

Colonel Buie graduated from The Citadel in 1911 with the degree of bachelor of science in civil engineering. In the fall of 1911 he entered the Massachusetts Institute of Technology. After leaving M. I. T. in 1912, he engaged in civil engineering and construction work continuously until June 1942 when he was commissioned a major in the Army. He was at that time serving in Newfoundland and under General Bruton, who was directing construction of Atlantic defense bases.

Projects of which the Colonel had charge as a civil engineer have included a sound-recording, reproducing, and manufacturing plant in Brazil; the Santee-Cooper power and navigation project near Charleston, S. C.; shipways in the Philadelphia Navy Yard; the Beach City, Ohio, dam and flood-control works, and the Tallahassee, Fla., sewage-disposal system.

The Buies' son, Capt. Wilson R. Buie, Jr., 27, also a graduate of The Citadel, is now a B-24 pilot.—LLOYD JONES, OL.

DDT in peace and war

ON April 5, Dr. Fred C. Bishopp, Assistant Chief, Bureau of Entomology and Plant Quarantine, addressed the New York Academy of Medicine on the subject, The Medical and Public Health Importance of the Insecticide DDT. Among other things, he described the contributions of USDA scientists toward winning the war.

For example, he said that DDT is coming to play a major role in our war operations for prevention of malaria, yellow fever, and other mosquito-borne diseases, and that credit for this achievement should go largely to a small band of our scientists headed by E. F. Knippling, who developed DDT mosquito killers at the Orlando, Fla., laboratory.

Interesting fact: As little as one-tenth of a pound of DDT per acre has been shown by entomologists at Orlando to kill all larvae of the malaria mosquito, *Anopheles quadrimaculatus* Say, under favorable field conditions. Even under jungle conditions, 3 quarts of a 5 percent DDT solution per acre, if broken into fine-spray particles, will kill more than 95 percent of all mosquitoes, both larvae and adults. One part per million in rain barrels will kill mosquito larvae.

EPQ scientists also developed the DDT

louse powders used to prevent a typhus outbreak in Naples during the winter of 1943-44 and generally by the armed forces to protect their men from louse-borne disease. In the North African campaign, the Army placed in the hands of the men an effective louse-destroying agent known as MYL powder, which had been developed by the same scientists before the war.

Dr. Bishopp pointed out that many recent advances in combating insects are prewar discoveries, or are based on knowledge gathered during peacetime, as in the case of the wartime use of insecticidal aerosols developed by EPQ workers, Sullivan, Goodhue, and Fales (Beltsville Research Center), in 1940. This is also true of methyl bromide, developed as an agricultural fumigant a few years prior to the war and used for delousing clothing.

DDT bombing missions

The contributions of EPQ scientists in developing different methods of applying DDT were described. These range from the hand application of a simple dust mixture, as in control of lice on man, to the application over jungle areas by huge bombers of dusts, sprays, and aerosols for mosquito control. "On D-day a few sweeps of a fleet of bombers with an almost invisible discharge of DDT in oil can destroy practically every mosquito on a beachhead, permitting our forces to concentrate on the Japs, without danger of malaria or dengue infections, during critical landing periods when other protections cannot be used," said Dr. Bishopp.

The Husman-Longcoy (USDA-developed) equipment for applying DDT sprays with a cub plane has proved useful and a basis for development of other equipment used by the Army and Navy, especially for employment on larger, fast-flying craft. These range from the cub to large bombers and from tanks holding 35 gallons to those holding 500 or more gallons of DDT.

Dr. Bishopp quotes Gen. James S. Simmons, of the Surgeon General's Office, U. S. Army: "I feel quite sure that the knowledge gained of this amazing chemical constitutes the most valuable single contribution of our wartime medical research to the future health and welfare, not only of this Nation, but of the world." In making this contribution to medical research, USDA entomologists have played the major role.—WILLIAM A. D. MILLSON, EPQ.

Whole blood is desperately needed to be flown to the South Pacific.

Brief but important

Coordinator: Paul C. Stark, of Louisiana, Mo., has been appointed Director of Home Food Supplies in the War Food Administration to coordinate activities in connection with the Victory Garden and related programs. He is a brother of Lloyd Stark, former Governor of Missouri, and a member of the Stark nursery family, and has been active in promoting gardens. The President announced this appointment by Judge Jones.

Personnel committee: On April 3 Bureau personnel officers agreed to form a committee to promote Department-wide personnel administration. This Personnel Officers' Advisory Committee consists of 11 members appointed April 28 by the Director of Personnel, 10 of whom were selected to represent the various constituent agencies and one the Department as a whole. They are H. E. Allanson, Douglas Smith, V. L. Couch, W. A. De Vaughan, H. D. Cochran, W. R. Van Dersal, W. L. Moore, Ralph Rogers, F. P. Abbott, F. H. Spencer, and D. A. Rowe. Incidentally, the Code of Personnel Administration has been printed and copies are available for distribution. Ask the Office of Personnel.

BAE employee awarded fellowship: Miss Eleanor Bernert, of the Division of Farm Population and Rural Life, Bureau of Agricultural Economics, has received a \$1,200 William Rainey Harper Memorial fellowship from the University of Chicago, awarded for the first time in honor of the founding president of the University, to work toward a Ph. D. degree in sociology. Miss Bernert graduated from the University of North Carolina in 1942 and has been in BAE since June 1943.

Are you a ghost voice? Because our manual dexterity is less unerring than our voices, we make many more mistakes dialing telephone numbers than would be made if we asked living operators for numbers and got connections that way. What do you do when you dial what you think is a right number and a strange voice answers—or even a familiar voice, but one belonging to a person you did not intend to call? Do you swallow hard and then hang up? If you do, remember it makes the person at the other end of the line mighty exasperated and very unhappy. In such instances, better at least apologize. Don't become a ghost voice.

Homing instinct? C. S. Platt and Robert S. Dare, of the New Jersey Agricultural Experiment Station, report in Science for April 27 on the homing "instinct" in pigeons. The size of it is that it isn't an instinct. Untrained pigeons couldn't get back home when released individually 80 miles away. Even training for half the distance was of no avail. But, after having once flown the 80 miles, the majority of the pigeons were able to find their way home again flying alone. However, they required 4½ to 7 hours to make the 80 miles, compared with 2½ hours when flying in a group. Another myth about instinct seems exploded. A Penn State physicist thinks localized atmospheric electrical potential guides the pigeons, and he is working on that theory now.

Garman named CCC Treasurer: Cameron G. Garman, new Treasurer of the Commodity Credit Corporation, was born at Niagara Falls, N. Y., graduated from Cornell in agriculture in 1928, did graduate work at Cornell and Columbia, and spent 4 years in the Department of Agricultural Economics at Alabama Polytechnic Institute. He joined the staff of Farm Credit Administration in 1933, and helped to organize the production credit corporations and associations. In January 1942, Garman was appointed assistant to Secretary Wickard. He became the Depart-

ment's assistant director of finance later the same year. He had served a short time as Assistant Treasurer of CCC just prior to his present appointment, made public April 19.

McDanolds' farm: Roe McDanolds Has a Farm, a pamphlet recently issued by the Agricultural Adjustment Agency—with the cooperation of the New Hampshire Extension Service—is believed to be the first Department publication based on one farm and the farmer who operates it. McDanolds is a small dairy farmer of North Haverhill, N. H., whose herd of some 20 cows in 1943 averaged over 13,000 pounds of milk by cow-test records. That's good production, but the unusual thing is that he does it with so little grain. The pamphlet tells how. N. E. Dodd, AAA Chief, says in a foreword: "In the New England States there are many good dairy farmers, who, like Roe McDanolds, are doing an outstanding job of milk production. His farm is only one of many producing milk with increasing efficiency. . . ." The pamphlet has been distributed to State Extension Directors and AAA offices in New England, and is available from the Department Office of Information in Washington.

As we were in 1896: "The Agricultural Appropriation Bill, as passed by Congress, appropriating \$163,400 for free seed, provides for the expenditure of \$42,500 for the printing of a new edition of 75,000 copies of Uncle Jerry Rusk's horse book; \$40,000 for 60,000 copies of Diseases of Cattle; and \$65,000 for a new edition of Cattle and Dairy Farming. These works are to be distributed by the public printer without consulting the secretary of agriculture. In addition congress has provided an appropriation of \$750,000 to be expended by the various experiment stations, outside the control of the secretary, who thinks there is no necessity for its expenditure."—American Agriculturist, March 28, 1896 (p. 359).

Busy bees: Specialists at our (and Georgia State's) Southern States Bee Culture Laboratory report that honeybees visit and fertilize about 8 million flowers in gathering each pound of pollen. An average colony collecting 65 pounds of pollen annually thus gives free pollination service to about 520 million plants a year. A bee's load is 2 pellets of pollen per trip—72,500 pellets to the pound. Busy bees? "You can say that again."

June 11, 1945

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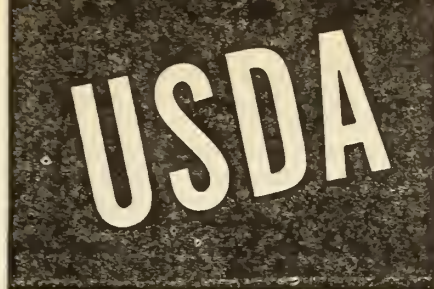
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FOR JUNE 25, 1945

He says that entomology has elaborated so rapidly in recent years that it is all he can do to keep up with it. Newer developments require the attention of chemists, toxicologists, physiologists, even specialists in ceramics. Science is being decompartmentalized and resynthesized here. Movies are found admirable to instruct farmers regarding spray methods and schedules during the winter months.

Many years ago, the editor remembers, he and Hudson got a big sackful of dead bees from Phillips, to see whether they contained the enzyme invertase—which breaks down ordinary table sugar into its components, dextrose and levulose. The bees contained plenty of invertase—more in their legs, indeed, than occurs in yeast—a striking finding Dr. Phillips remembers clearly.

O. E. May, AIC Chief

RAISED in a farming section of north-eastern Iowa, Dr. O. E. May, Chief of the Bureau of Agricultural and Industrial Chemistry, has spent his life using chemistry as a tool to improve the standard of living. He has done considerable research in analytical, physical, and biological chemistry. His work has been directed mainly toward the industrial utilization of agricultural commodities. One of the younger men in responsible research positions, Dr. May has already demonstrated his ability as an able administrator. His decisions are usually prompt and straightforward.

Dr. May was born in New Albin, Allamakee County, Iowa, in 1901. His parents were of pioneer-settler stock. He received his early schooling at Loras College, Dubuque, Iowa, and later studied at the University of Minnesota and at George Washington University, where he received A. B., M. S., and Ph. D. degrees. He served for a time as instructor in chemistry at the latter institution. He joined the staff of AIC (then the Bureau of Chemistry) in 1923 as a scientific aide and has advanced step by step to his present position. As a research worker, he has dealt with all phases of the chemistry of products important to agriculture, including corn, wheat, soybeans, vegetable oils, and agricultural residues or waste materials.

Pioneer work was done by Dr. May and his coworkers at Arlington Farm, Va., on the use of mold fermentations to produce industrial products from agricultural materials. This work established the basis for AIC scientists quickly to increase the yield of penicillin to the

cializes on the fresh and the other on processed varieties.

F. B. Morrison, surviving member of the famous team of Henry (William A.) and Morrison—Feeds and Feeding—is hale and hearty, genial, and full of plans for a compendium on animal feeding in several volumes. It is to be hoped that he completes this project, for no one has the information and literature better at hand, and too few distinguished specialists crown their careers by writing up what they know and have found out for the guidance of others. Liberty Hyde Bailey, clear-headed and active in his retired eighties, is still producing useful monographs and claims to have done more work since he retired than before!

Orchid man

Lewis Knudson is the man who taught orchid seed to germinate, something never done before, by finding out the kinds of organic food they wanted. Incidentally, he tried out some of the rare sugars the USDA editor made in 1910-18 when with C. S. Hudson in old Chemistry, and he still had some vials of these sugars received from Washington so many years ago. Orchid seeds are very tiny and propagation from seed was impossible until Knudson coaxed them to germinate. Then he turned to vanilla seed—vanilla is an orchid—and was again successful. He likewise does wonders with various ferns and has recently been engaged in a rubber project.

Charles Palm, in charge of entomology, has E. F. Phillips, long ago of our Bureau of Entomology, on his staff. Phillips is still working with the honeybee. Many New York apiarists now make a tidy sum renting out hives of bees to do pollinating. Others ship their bees to Florida for a winter crop, then ship them back to make a summer crop in New York. Now they are trying to decide whether it is better to do this or to have hives in both States and simply travel back and forth themselves!

Palm is young and full of enthusiasm.

At Ithaca

A VISIT TO Cornell is inspiring to the visitor, even if not to those visited, all of whom, however, prove most hospitable. Leave it to an information man to seek his own kind, so naturally "Prof." (as he now authentically is) William B. Ward (ex "Bill" Ward of Distribution) met USDA's editor at the station. Soon acquaintance was being renewed also with George S. Butts, James F. Knapp, and Nell B. Leonard. Our old friend, Bristow Adams, had gone to Washington, but not to escape the visitor.

At Cornell the land-grant college, the experiment station, and the extension work are well synthesized into a single integrated unit, with a director for each operating under the dean of agriculture. Carl E. F. Guterman, Director of Research both here and at Geneva, and also Director of the Ithaca Experiment Station, explained this. He is young, alert, and businesslike. He knows how to impart information quickly and effectively, and he has it to impart.

The New York stations do not encourage new substations. They intend to have few. If special problems arise, land and quarters are rented if possible; then, when the problem is solved, no one has a vested interest in maintaining the station beyond its period of usefulness. It can be closed out. In the same way, the tendency is strong to assign problems to good men already on the staff, giving them plenty of graduate students to carry out their ideas. Normally 400 of these students are available. Thus the staff is not filled with high-salaried men who may not be needed later.

The Cornell and Geneva stations do not overlap in projects. There is clear separation just as there is between Storrs and New Haven in Connecticut, where one takes problems in the animal and the other in the vegetable and fruit fields. Though both New York stations work on foods and vegetables, one spe-

point where it was feasible for industry to start the production of this remarkable new drug on a commercial scale.

His accomplishments at Arlington Farm caused him to be selected to head the Bankhead-Jones Soybean Laboratory at Urbana, Ill. He was its first Director and served from March 1936 to August 1938. In this short time he assembled a staff of investigators of marked scientific attainments and established for the laboratory a place of high regard with the State Agricultural Experiment Stations of the 12 North Central States and the soybean and chemical industry.

In August 1938, May was chosen to direct a research survey of the North Central States relative to the location and establishment of the four Regional Research Laboratories. In January 1939, he was appointed Director of the Northern Laboratory, at Peoria, Ill., which he organized and staffed. He held this position until he was made Research Coordinator in chemistry for the Agricultural Research Administration in July 1942. He became Chief of AIC in April 1944.—FRANK TEUTON, AIC.

Veterans and co-ops

VETERANS—an estimated three quarters of a million strong—will look to the colleges for training when discharged. Farmer cooperatives have a stake in the future of these veterans. If co-ops are to have sound leadership, they must have men with training and education.

Of 34 land-grant colleges replying to inquiries of the Cooperative Research and Service Division of Farm Credit Administration, about half were giving one or more special courses on cooperatives, in addition to accounting, business law, agricultural economics, and business and marketing. Seven were giving more than one co-op course.

Yet some colleges wonder if their students and the co-ops will be able to get together after graduation. Oklahoma A. & M. sums up the reasons why more students aren't interested: (1) Instability of tenure associated with the semi-political nature of some cooperatives; (2) relatively low wages paid; and (3) insufficient opportunity for advancement. Other colleges say the co-ops hire from within their own ranks rather than college men.

But that's only the "con" side of the picture. Do the positives eliminate the negatives? The University of Maryland, which has given a course in cooperatives since 1914, claims many of its

graduates are leaders in co-ops throughout the Nation. Actual training work in collaboration with co-ops is now offered in some agricultural colleges. Before the war Ohio State had a working program with the Ohio Farm Bureau, whereby students worked during summer vacations with the Farm Bureau cooperative. If they took a mutual liking to one another, the student took courses to prepare himself for a job with the cooperative. Louisiana State also had started such a course.

Cooperation with co-ops

Some colleges—Missouri for one—are planning to set up a special curriculum to train for cooperatives. Pennsylvania State College points to the need for basic courses. It insists that students should get broad training in agriculture, including farm management and marketing . . . that they should understand fundamentals of accounting and business management . . . that they should be able to work with people and understand them . . . and, finally, that they should know the concepts, status, and operation of cooperatives.

The University of Illinois has in-service training in cooperation with the Illinois Farm Supply Co. Specialized courses in subjects such as motor fuels, fertilizers, and feeds are given. Along the same line, Cornell advocates an annual school for cooperative managers to fill the needs of smaller associations.

Colorado State College proposes to offer 2-year short courses in agriculture to take care of veterans who may not be able to take a full 4-year course under the G. I. Bill of Rights. Other schools are prepared to give special courses which may be completed in shorter periods of time.

So it seems that there is plenty of opportunity for the college, the co-op, and the veteran to get together.

Shepard of BAE

JOHN B. SHEPARD died May 1. The Bureau of Agricultural Economics then lost one of its most valuable employees. All who knew him—and there were a great many of us, in spite of his passion for anonymity—are shocked. We'll miss him and his wonderful sense of humor more than we've had time to realize.

"Shep," as he was affectionately known around here for 27 years, prepared the descriptive summaries for crop-report releases. He had unusual talent for analyzing and interpreting the great mass of facts collected by the Crop Re-

porting Board. His work was pointed, clear, accurate, and vivid—definitely not dry-as-dust Government reports. He was a real pioneer in many fields and wasn't afraid to stick his neck out.

His goal was the truth. He had an insatiable curiosity, intellectual honesty, thoroughness, and moral courage. He had an uncanny ability to find weak points in proposals or plans, and pointed them out in his own quiet and modest way. Even with the high-pressure deadline that must be met in preparing crop reports for release to the public, he stayed patient, unruffled, kindly.

John Shepard was born in Buffalo, N. Y., in 1884. He graduated from Cornell in 1907. After several years as a consulting agronomist and manager of farms and irrigation enterprises in Texas and Pennsylvania, he entered the Department in New York in 1918, and in 1924 became a member of the Crop Reporting Board in Washington, a position he held until his death. His only son, Walter, was killed in action last July.—FLORENCE B. KANDINER, BAE.

Best Porte in a storm!

IT'S A quarter of a century now since the cry, "Come into Macedonia and help us!" rang out from the tomato-shipping industry of Florida. Unless the ravages of wilt and nailhead rust could be checked, and soon, there wouldn't be any tomato shipping industry. Well, Department plant breeders rode into the breach and rescued the industry from the danger by producing the disease-resistant Marglobe, for it came, saw, and conquered in true *veni, vidi, vici* style. And then went on to become one of the best general-purpose tomatoes in the world.

"Who dunnit," however, was something of a mystery. Finally a bit of light seeped out from under the bushel and it was learned that Fred Pritchard and Bill Porte, of the Bureau of Plant Industry, Soils, and Agricultural Engineering, had done the job. Fred died a few years ago, as quietly as he had lived. Bill, however, has continued to carry on, and has shown there are even greater breeding possibilities with tomatoes. He has proved this with the new superlative Pan America tomato, a hybrid between the Marglobe and a fusarium-immune strain of *Lycopersicon pimpinellifolium*, or the currant tomato, sent to him by a scientist in Peru, through the Division of Plant Exploration and Introduction, PISAE.

The original cross was made in 1936.

The F_1 was immediately back-crossed three successive times incidental to growing two crops per year, using both the field and the greenhouses. About 50,000 plants of the third back-cross were grown in 1938, from which about 40 satisfactory-appearing large-fruited segregates were obtained. Progeny of these were promptly tested against wilt by new and improved methods and all but 4 eliminated—and so on. By 1940 Bill not only *had* the Pan America but had it ready for the seed trade! Four years from scratch! “Best Porte in a storm,” say the tomato growers; and so say we all.—JOHN A. FERRALL, PISAE.

Meeker, reconverter

THERE ARE invisible letters on the door marked “Director of Surplus Property and Reconversion.” The ones that can’t be seen spell “county agent.” And they are just as real—to those who know the man inside—as the letters that greet the eye. For David Meeker, as a staff officer of the Secretary and War Food Administrator, brings to high office the same practical agricultural service, grassroots thinking, and zoneless energy that were once reserved for the people of Ozark County, Mo.

Having helped to organize and operate the agricultural war program, farm-minded Meeker is a natural choice to help organize the reconversion. Like a combination watchdog and Missouri “coon dog,” he must help “tree” the game (the surplus goods that farmers need) and also protect the farm by preventing disadvantageous disposal practices.

Through long practice in converting a welter of ideas into a plan of action, Meeker eschews strong-man tactics, relies on full discussion to bring agreement and sensible compromise. In his deliberate, good-humored speech, there’s a little “Missouri” but not much trace of the Army sergeant he was in World War I. Unhurried, unruffled, his occasional lapse into the sergeant vernacular seems more introspective than stinging. Tall, balding, he likes a good cigar, but can stand a bad one.

Look at the record

For those who think they know a man by the events of his life, here is the record:

Born in 1900. Early years on the family fruit farm near Birch Tree, Mo. A sojourn in Seattle, Wash., where he enlisted in the Army. Back after the Armistice to the University of Missouri where he received a degree in agriculture in

1924. Ten years a county agent, with a year out for private work. During all this time, part owner of a poultry and dairy farm. In 1934-36—supervisor of county agents in northwest Missouri, also working on the Agricultural Adjustment Agency’s corn-hog, wheat, and tobacco programs. Later, Extension representative on the Missouri Agricultural Conservation Committee.

That brings us to 1939 and to Washington, where he came to work in the Bureau of Agricultural Economics, and later was on loan to the agricultural division of the Advisory Commission to the Council of National Defense. In 1940 he became an Assistant to the Secretary and, in 1941, Assistant Director of the Office for Agricultural Defense Relations. In his last move before the present job, he was Chief of the Farm Machinery and Supplies Branch, Office of Materials and Facilities.

Proving that you can’t take the country out of the boy, Meeker chooses to live far from city streets in Fairfax County, Va. His family consists of a wife and three children. And a great deal of their food comes from a neatly terraced half-acre garden. It’s even said that he does some of the canning and freezing himself. Friends of lesser stamina—reflecting on his long office hours of the past several years, his wartime aversion to vacation, and his easy going disposition—wonder, “Where does he get the time and energy?”

FCA District 2

HEADQUARTERS OF District 2 of the Farm Credit Administration is housed in an austere but attractive and comfortable bank building, erected for this purpose at Twenty-fourth and St. Paul in Baltimore. General Agent J. K. Doughton expresses pleasure in the fact that farmers are trying hard these days to put FCA out of business. He is all for that if farmers can pay up and do the job, as that is what FCA is for. He notes, however, that, due to the magnificent work of the Soil Conservation Service and Agricultural Adjustment Agency, farm land has not suffered during this war as it did during World War I.

Also, though we stand on the brink of farm-land inflation, basic financial factors are different from those that obtained in 1919. Farmers are not so much in debt. They are not so much tempted yet to buy land speculatively and largely on credit. If they do buy, those who remember World War I seek to pay fair prices, and have sufficient capital to pay

enough down to forestall bankruptcy, if times get a bit harder later on. Times are so far better than in the days of 1919-20.

While visiting FCA, the editor talked also to Hugh S. Mackey, President of the Intermediate Credit Bank, to Carl D. Simpson, Comptroller, and to Charles Ciotti, acting information agent. Congenial Charles J. Southworth, personnel officer, was our fully adequate entertainment committee of one.

The evolution and organization of FCA merits serious study by experts in management, administration, government, and political economy. There are seeming complexities, actually valuable checks and balances—but the organizational pattern works, and it works well!

Some 200 employees are stationed in Baltimore, and 60 persons in Puerto Rico also are under District 2.

Vale, plant doctor

WHEN John W. Roberts, principal pathologist, orchard-disease investigations, Bureau of Plant Industry, Soils, and Agricultural Engineering, retires June 30, the Department loses the daily services of one of its ablest and best-known research workers. Dr. Roberts was born at Alma, Nebr., July 4, 1882, so he beats the 70-year deadline by a good margin. He received B. A. and M. A. degrees from the University of Nebraska; and earned a Ph. D. the hard way by evening study at George Washington University, Washington, D. C., after reporting for work at the Department July 1, 1909.

Those were the pioneer days of plant pathology in the Department, and Dr. Roberts played a vital part in blazing the way to the present effective control of the diseases of fruit trees. He early proved his fitness for the job by detecting previously unnoticed cankers on twigs of apple trees that were causing the spread of the serious bitter-rot disease resulting in losses of millions of dollars. He stopped the leak!

It wasn’t long before he was recognized as an authority on fungicides and spraying methods, particularly in connection with the development of little-known fungicides. Comparatively few research men have been so frequently consulted as he, by associates and by outside specialists. He is the unprejudiced type of research man who aims at the truth regardless of its effects, and so has increasingly won confidence in his investigations and reports, whether his results were positive or negative.

Perhaps Dr. Roberts' most outstanding achievement was in connection with the work on the zinc-lime spray for bacteriosis of peach and plum, for these studies practically opened the way to our present knowledge of zinc deficiencies. He has contributed more than 100 papers to Department series and outside scientific and technical journals, and is the author of half a dozen of the most widely circulated Department publications on fruit diseases and their control. He served as editor of *Phytopathology* from 1929 to 1931, and has been a member of the Joint Committee on Policy and Manuscripts of the *Journal of Agricultural Research* since 1930.—JOHN A. FERRALL, PISAE.

Seamless garment

HAVE YOU ever had the experience of telling someone he could find the answer to his question in the Library and of being met with a blank look? We have a magnificent USDA Library, yet how many people have never been educated to utilize library facilities intelligently! How many misconceive the very nature of knowledge itself!

Our educational system has long too much emphasized facts and propositions. Students come to believe these and go out into life having permanent, implicit faith in them. Yet that which was true yesterday is not always true today, and much that remains true both yesterday and today lacks practical value in certain situations. The facts and laws of electronics were true in George Washington's day, but they were of no practical value because the fabric of scientific knowledge had not then been so woven as to give them value.

True education would place emphasis upon methods, upon evoking the power of mental concentration, upon the development of precision and exactitude in small things and in great, and upon developing or evoking the ability to ferret out and recognize authorities in print or in person. The facts the writer learned in the chemical laboratory years ago are often valueless or untrue, but the method he learned there sticks. We must usually unlearn *what* we learned in college, but if we did learn *how* to learn while there, we are fortunate indeed.

It is unsafe to bank on facts told us in school or anywhere else. It is much safer to know how to use the recognized authoritative sources and check for ourselves. It is better to learn word usage, orthography, how to utilize libraries, how

to tell true from false books, persons, authorities, how to be neat and systematic.

For the great seamless garment we call knowledge is forever wearing out here and there, but forever reweaving itself, just as protoplasm continually undergoes a tearing down and a building up. There are few final facts, few eternal truths. Things are true only as they fit into the pattern being woven now.

The things to tie to are knowledge of method, sound judgment of people and of books, and that mental flexibility and elasticity which can enable even the elderly to discard the old and embrace the new, immediately the latter assumes verity by being woven into the fabric of today's knowledge.

The public wants to know

WE THOUGHT you might like a sampling of the questions asked by the public at the Information desk maintained in the main lobby of the Administration Building in Washington by the Office of Plant and Operations.

Do they close the offices for lunch?

Let me talk to the tall man who wears glasses in the fruit division.

What is goat meat called? ("chevon," if you too must know answers).

Can I see the Secretary to find out what these bugs are on my roses?

Where can I find the Wing Chief of the West Wing?

Is this the Jefferson Memorial? (substitute Smithsonian or almost any other building).

Is there going to be a ball game today?

Which State raises the most potatoes?

How do you take ink stains off a rug?

How do you spell "Marselle?"

How do you fix grasshoppers to eat?

Who's in charge of horses?

Where is the notary whose first name is Bernard?

Do you have insects here?

How long does it take limburger cheese to get that smell?

Can I talk to somebody about my "analogy"?

Why do horses rub their tails against trees?

For what can rotten eggs be used?

How many pork chops does one hog make?

What is the best wearing material for curtains?

Where can I have my cow tested?

What's in chocolate milk?

How fast do migratory birds fly?

On which side of a cow do you sit to milk it?

Brief but important

Big doings in Athens: Members of the Employees' Association of the Agricultural Adjustment Agency in Athens, Ga., received a citation from the Treasury Department for exceeding their Sixth War Loan quota by 355 percent. That meant buying \$28,337.63 worth of bonds instead of \$5,155.95. Mrs. Johnnie Ruth White, chairman of the drive committee, received the citation. General Marshall's portrait duly inscribed, from C. A. Wood, of

Atlanta, regional coordinator of the Interdepartmental War Savings Bond Committee. Of course these non-Greek Athenians expect to do better still for the "mighty seventh" war loan drive.

Paul Appleby: As assistant to the Secretary and later as Under Secretary, Appleby had an extraordinary opportunity to see the Government operate. He has now written a book in defense of Government bureaucracy. He calls it *Big Democracy* and, as might be expected, the Department is mentioned many times throughout its 197 pages.

Dr. Eisenhower: As a feature of Colorado A. & M.'s seventy-fifth anniversary celebration, Milton S. Eisenhower, our former Director of Information, received an honorary degree of doctor of science from President Roy Green of the college. This was "for his outstanding service in agriculture, education, and public affairs." He is now President of Kansas State.

REA: An interesting, compact, informative, illustrated history of the Rural Electrification Administration's first decade may be found on pages 4 to 9 of *Rural Electrification News* for May. Look this up.

Buffalo USDA Club: The editor talked in a Buffalo court room May 18 to about a dozen hardy souls who ventured out on a cold, windy, rainy night to hear an illustrated lecture on our Department scientists. The club is small, meets irregularly, and now has no regular officers, though F. G. Inman, of the Bureau of Entomology and Plant Quarantine, is trying to hold it together. Only a few meat inspectors, now in the Office of Marketing Services, and some workers from the Bureaus of Animal Industry and of Entomology and Plant Quarantine attend. A fine, active club could be organized here, as potential members number 75 or 80.

The 100 Best: The editor of Vocational Guidance, published by Science Research Associates of Chicago, writes the Department that its bulletins, *Shall I Be a Farmer?* and *What is Farming?* are listed among its "The 100 Best." This is a list of free and inexpensive guidance materials the Associates consider the best of all the 574 such items listed in the *Guide* September 1944-May 1945, inclusive.

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FOR JULY 9, 1945

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New Secretary

OUR NEW SECRETARY, Clinton P. Anderson, is curly-haired, pleasant-faced, and 49. He regards himself as primarily a businessman, although he was raised on a farm and continues to have farm interests. He owns and operates 800 acres of irrigated land south of Albuquerque, N. Mex., and another 640-acre farm near Mitchell, S. Dak. On the former he has some 125 Holstein cattle (both grade and registered) and he raises alfalfa, oats, barley, and grain sorghums for feed. He sells milk on the fluid market and belongs to the New Mexico Cattle Growers' Association. So much for agriculture.

As to business, Mr. Anderson is president of the Mountain States Mutual Casualty Co., which he organized in July 1937. He operates a general insurance agency in Albuquerque. He has for years been active in civic clubs and, in 1932-33, was president of Rotary International. He was elected to the House of Representatives from New Mexico in the 77th, 78th, and 79th Congresses. In the last he was chairman of the Committee to Investigate Food Shortages, reports of which, dated May 1 and May 21, will repay reading.

The new Secretary was born in Center-ville, S. Dak., October 23, 1895, the son of a Swedish immigrant. He was educated at Dakota Wesleyan University and at the University of Michigan. He held various offices in the field of rural rehabilitation and relief in New Mexico, and was treasurer of that State 1933-34, chairman and executive director of the Unemployment Compensation Commission of New Mexico 1936-38, and managing director of the Coronado Exposition Commission 1939-40.

Long an admirer of the late President, he possesses a considerable collection of literature and documents regarding him. This collection is motivated by his belief that, half a century from now, Franklin D. Roosevelt will be held to have been as

great as Abraham Lincoln, and contemporary material regarding him will have great value. While not a collector of private editions, Mr. Anderson began to haunt book stores about a decade ago, pouncing on items which have become part of his excellent 3,000-volume library on the history of the West. Finally, he also has an excellent collection of war-time budget hearings for future reference.

He is married and has two children, a boy, aged 20, now a corporal stationed at Camp Crowder, Mo., and a girl, 15, attending a seminary in Washington. That he will find the Department's entire staff backing him loyally goes without saying.

New Under Secretary

THE APPOINTMENT of John B. Hutson as Under Secretary, to succeed Grover Hill, who was also First Assistant War Food Administrator and who resigned to re-enter private business, was announced by the President June 7. This marks the return to the Department of a veteran, simon-pure, career man.

"Jack" Hutson was born on a farm near Murray, Ky., September 7, 1890. He took his B. S. at the University of Kentucky and engaged in graduate work at the University of Wisconsin and Columbia University, receiving his M. S. from the former and his Ph.D. from the latter. But, before his higher education was completed, he was engaged in agricultural extension work, and also had been a farm economist in the Office of Farm Management, an assistant professor of agricultural economics at the University of Kentucky, and an agricultural economist in the Bureau of Agricultural Economics.

From 1930 until 1933 Hutson served as principal marketing specialist in European countries for the Foreign Agricultural Service, Bureau of Agricultural Economics, and engaged in a study of the

European tobacco industry. From 1933 until 1935 he was chief of the Tobacco Section of the Agricultural Adjustment Administration and, from 1935 until 1936, director of the AAA's Division of Tobacco, Sugar, Rice, Peanuts, and Potatoes. From 1936 until 1940 he was assistant administrator of AAA.

He became president of the Commodity Credit Corporation in 1941, after having been deputy commissioner of the Division of Agriculture of the Advisory Commission to the Council of National Defense. Between 1941 and 1944 Hutson was also Director of the Food Production Administration and of the Office of Production in the War Food Administration, and, January 1, 1945, was appointed Deputy Director for Agriculture, Office of War Mobilization and Reconversion, from which office he returns to the Department as its Under Secretary.

New REA Administrator

The new REA Administrator, Claude R. Wickard, needs no introduction to Department employees. Associated with the USDA since 1933, he was Secretary from September 1940 until sworn in as REA Administrator early this month.

Mr. Wickard, who has long shown a keen interest in the rural-electrification program, is genuinely enthusiastic about the postwar prospects of REA which, he points out, is on the threshold of tremendous expansion.

The recent relaxation of restrictions on electric-line construction has resulted in a flood of new applications for REA loans. In June these applications were coming in at the rate of over a million dollars a day.

Mr. Wickard sees in his new job a tremendous challenge in working toward the electrification of the six million unelectrified rural homes and establishments.

The new REA Administrator has been given honorary membership in the American Society of Agricultural Engineers for his outstanding contributions to agricultural engineering, both as a farmer and as Secretary of Agriculture. Only 14 honorary memberships have been granted during the 37-year history of this society.

Two good books: Your attention is called to Big Government, Can We Control It? an intelligent discussion of bureaucracy, by Merlo J. Pusey, of the staff of the Washington Post, and to If the Prospect Pleases, the West the Guidebooks Never Mention, a brief, breezy, and informative exposition of everything western, ranching included, by that famous Santa Fe-New York City commuter, Ladd Haystead.

Home Food Supply

INCREASED IMPETUS has been placed behind the home-food production and home-food preservation campaigns by the appointment of Paul C. Stark as Director of the Office of Home Food Supply. This Office was established by Administrator's Memorandum No. 27, Revision 1, Supplement 5, dated June 5.

The functions of this new Office in WFA are to coordinate the activities of agencies concerned with the supply of foodstuffs produced at home or conserved from Victory Gardens and seasonal surpluses. The Director will maintain liaison with such other agencies as necessary to obtain facilities and foster public participation in this campaign.

Strong efforts will be made to have the greatest possible number of people, both urban and rural, take part, to the end that Victory Gardens and home canning may effectively supplement our war requirements for foods produced commercially. The Director will work with and through all agencies concerned with food production and conservation.

Again let us stress the urgency of bigger and better Victory Gardens and increased effort on home-food preservation.

Judge Jones leaves

The return of Marvin Jones to his judgeship on the U. S. Court of Claims the first of this month terminated his two-year tenure as War Food Administrator. This was in keeping with his long-expressed desire to return to the Court of Claims, from which he had been granted a leave-of-absence, as soon as the wartime work of WFA would permit.

Judge Jones has devoted practically his entire life to the cause of agriculture. He was born and reared on a farm, and as a country lawyer and as a member of the House Committee on Agriculture for 20 years—9 years as chairman—he has been intimately associated with agriculture.

He has authored more important and basic farm legislation than any man who has ever served in the U. S. Congress.

As War Food Administrator, he has served during the period of greatest military urgency on the food front.

Among Judge Jones' other contributions to agriculture, he served as agricultural adviser to the Directors of the Offices of Economic Stabilization and of War Mobilization; and was president of the United Nations Conference on Food and Agriculture.

In his post as War Food Administrator, he has been particularly democratic in his operations. His daily staff meetings and the open-door policy toward all the employees that it was physically possible for him to see are noteworthy examples.

Agriculture employees wish him continued success and happiness.

Wheeler of FAR

LESLIE WHEELER, Director of the Office of Foreign Agricultural Relations, is one of those fortunate men who, early in life, decided on a definite goal, then headed in that direction. A natural interest in agriculture, combined with love for travel, prompted him to choose a career in international agricultural relations. Born in Iowa, "where the tall corn grows," his family later moved to California, where he was educated at Pomona College. Afterwards, he came East to do postgraduate work at Harvard.

His first position in Washington was with the Bureau of Foreign and Domestic Commerce. There he made a number of studies on agricultural commodities, among them one on International Trade in Cotton, published in 1925. Moving closer to his choice of a career, he transferred in 1926 to the Bureau of Agricultural Economics, where among other things he served as the Bureau's liaison officer with the Department of State. Four years later, in BAE's newly formed Division of Foreign Agriculture Service, he was made responsible for preparing and disseminating information collected by foreign agricultural representatives and for planning studies of foreign competition and demand for U. S. farm products. He became Chief of this Service in 1934.

In 1938, when BAE's foreign work was transferred to the Office of the Secretary, Wheeler was put in charge. Finally, under the President's Reorganization Plan No. II, the present Office of Foreign Agricultural Relations was set up in 1939, with Wheeler as its first Director.

Wheeler's accomplishments at international meetings have been many. At London in 1933, he helped to salvage, from the World Economic Conference, the International Wheat Committee, which subsequently led to the International Wheat Agreement. In Havana, at a meeting of the Ministers of Foreign Affairs of the American Republics in 1940, he served as adviser to Cordell Hull, then Secretary of State. Wheeler was a U. S.

delegate to the Second Inter-American Conference on Agriculture in Mexico City in 1942, and is preparing basic material for the delegation which will go to Caracas this July for the third such conference. Also, he was named chairman of the U. S. Section of the Mexican-United States Agricultural Commission formed in 1944, and was recently elected chairman of the International Cotton Advisory Committee.

Off the record

At international conference tables Wheeler's success, his associates say, is due to his "knack of cutting through to the heart of a question," as well as his ability to get people to work together harmoniously. He marshals his thoughts effectively, expresses them clearly and briefly in a quiet voice, and relies on facts and logic to carry their own persuasion.

His unofficial life is mainly concerned with his home, and with a garden in which privileged visitors are shown, among other choice features, a symmetrical, espaliered apple tree, one of the few in this part of the world. A wire-haired terrier, Tim, comes in for a share of the attention; in his own way, he helps to entertain guests in the Wheeler home. Unaware of present clothing shortages, Tim recently made a pass at his master and came away with a good chunk of the Director's trousers!

"Les," as he is known to his many friends and colleagues in the Department, also likes golf. Under pressure of war priorities, however, he has forsaken his midiron for the family lawn mower.

Better management

WHEN W. A. Jump, Director of Budget and Finance, made his general USDA budgetary statement to the House Committee on Appropriations this year, he especially stressed the management-improvement program and better manpower utilization. (Incidentally, he called attention to the fact, that, whereas appropriations made for the USDA program for 1942 were \$1,253,447,361, the 1946 estimate is \$512,385,736, a reduction of \$741,061,625.)

The management-improvement program involves saving manpower and materials, simplifying procedures, expediting operations, improving organization, and reducing costs. Naturally, not all improvements can be shown to have a definite dollar value, yet they may make services rendered the public far more

effective and efficient. But the estimated dollar value of 571 individual cases of management improvement and better manpower utilization, reported between August 15, 1944, and February 15, 1945, was shown to be \$2,628,312.

Every agency takes an active interest in this program and all have made important contributions. If you can get hold of it somehow—and *USDA* has no copies—read pages 111 to 120 of Mr. Jump's statement in the printed report on the Agriculture Department Appropriation Bill for 1946, Part 1 of the Hearings before the Subcommittee of the Committee on Appropriations, House of Representatives. This gives as good a presentation of what the program has accomplished and can do as anything you are likely to come across.

Our friend, Mr. Hill

The outgoing Under Secretary of Agriculture and First Assistant War Food Administrator, jovial and friendly Grover B. Hill, will not be quickly forgotten by the employees of the Department. There is perhaps no man in the history of the Department who has been so well known personally by so many employees as he has.

Associated with this Department since 1934, he has made a special effort to know employees of all rank. And employees of all rank in turn have felt free to call on him. His love for people, his easy and informal manner have given people all along the line a feeling that the latch string on Grover's door was always out.

Not only did he keep up his acquaintance with people in Washington, but he also circulated freely among employees in the field. He undoubtedly has visited more *USDA* Clubs, throughout the country, than any other person, with the possible exception of *USDA*'s editor.

It is putting it mildly to say that the employees of the Department wish him godspeed in his new pursuits.

Pat for bureaucrats: The president of Mitchell Advertising Agency, Minneapolis, writes the Bureau of Human Nutrition and Home Economics that a client manufacturing company plans to change its entire system of sizing children's knitwear after studying that Bureau's research report, *Body Measurements for Sizing Garments and Patterns*. He says, "Your department is given credit for the splendid contribution you have made that the industry may serve mothers better and fit children properly. It may not be according to the book to give 'bureaucrats' a pat on the back, but we just thought you would like to know that one manufacturer has taken you seriously."

What is your pleasure?

BY THIS TIME those in charge of getting out *USDA* would like to know your pleasure regarding it. This would help us in preparing future issues. We need a little more guidance than your mere assertion that you like or dislike the house organ, so the editors have tried to frame a brief questionnaire below, which will be easy for you to fill out and return.

Will just as many of you readers as possible, whether in Washington or in the farthest reaches of the field, please fill in and return to T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.? This would be appreciated no end by your editors, the Editorial Advisory Board, and Assistant Director of Information R. L. Webster, under whose supervision your editors work.

Would you prefer more or fewer articles on the subjects listed below? Just write in "more" or "fewer."

- USDA-WFA agency structure and functions.....
- Activities of individuals.....
- Biographies.....
- Historical matter.....
- Accounts of research achievements.....
- USDA-WFA reorganizations.....
- Administrative matters.....
- Material relative to personnel.....
- Workers, work habits, and bosses.....
- Books and outside articles.....
- WFA activities and programs.....
- Policies.....
- USDA activities and programs.....
- Quoted commentary on *USDA*.....
- Editor's travelogues and other editorial matter.....
- Remarks and further suggestions of your own.....

If this doesn't leave you sufficient space to express yourself, write the editor a letter.

At Penn State

THE OTHER DAY Dean S. W. Fletcher, of Penn State College, drove us around the campus for an hour or two. He retired July 1 as dean of agriculture after 30 years of service, and he showed us orchards he had planted there soon after he came to the college, in days when it was considered necessary to plow up the land around the trees every year. Now that is not done and the trees do better without it.

Paul H. Margolf, working on poultry husbandry, told us something about turkeys, not only reminding us that they are grazing animals, but expounding what science has done for them—at

least from our human standpoint. In the wild, turkeys laid only about a dozen eggs a year. Ten or fifteen years ago, 50 eggs were considered good for domestic birds. Now 125 eggs a season, of which 90 will hatch, are not unusual for a turkey hen, and, with poults at 80 cents each, that is a return of \$72 from one hen in a year. Selection and better feeding account for this.

E. B. Forbes, Henry Prentice Armsby's successor as head of the Institute of Animal Nutrition, also retires soon. He talked quietly and illuminatingly about the Institute's work. He showed the editor Armsby's famous calorimeter, tailored to cow size, and told how the Germans imitated it from specifications

taken at Penn State. But they never got their calorimeter finished, because the first World War came along and absorbed all their copper.

J. W. White, soil technologist in the field of agronomy, and oldest of the faculty in point of service—though he looked far from old—has recently been investigating the virtues of chicken manure, and they are many. He considers it a vastly underrated fertilizing agent. He said it tops everything else when used correctly. Some aging, but not much, is required to prevent it from burning vegetation, and it readily loses nitrogen if permitted to stand exposed too long.

SCS in a cottage

We called on Earl B. Kintner, of Soil Conservation Experiment Station Project R-1. He and his two or three associates are housed in a bucolic little frame cottage, to which USDA somehow finds its way and is a welcome visitor. He has elaborate apparatus there for checking the run-off on plots of known size under different covers, or in fallow, but says this type of experimentation is going out of style. Dean Fletcher kidded him into saying that SCS people are making such rapid progress they are running out of problems to solve.

A little after four, Dean Fletcher introduced the editor to a group of about forty which gathered in a classroom in the agricultural building to hear the illustrated talk on the Department scientists. The group was cordial to a lonely Federal worker and made him feel very much at home. Ed Rohrbeck, Extension Editor, looked hearty and well and was his customary entertaining and genial self.

Scientist-administrator

ACCORDING TO popular belief, it's about as easy for a scientist devoted to a chosen field of research to become a successful administrator of a Government Bureau, as for the proverbial camel to go through the needle's eye. First as assistant chief, now as Chief of the Bureau of Human Nutrition and Home Economics since June 1944, Hazel K. Stiebeling is proving it can be done—and done with womanly grace and no sacrifice of feminine taste in hats or hair-do.

Dr. Stiebeling's chosen field of research is food economics, but food economics of a kind in which few have specialized. For she has sought not only the kind and quantity of different foods

American families are accustomed to eat. She has analyzed these food figures to find how such diets measure up by nutrition standards.

Out of a welter of such statistics gathered in a Nation-wide survey of farm and city families in 1935-36, she drew some very pointed facts to prick the bubble of our complacent assumption that the U. S. is the best-fed nation on earth. Are We Well Fed? the popular booklet published on the eve of the National Nutrition Conference in 1941, is now regarded the world around as a classic in its field. So also are the supporting technical volumes of data on food consumption and dietary levels for farm and city families.

It is only natural then that, since 1936, Dr. Stiebeling's tall slender figure has been easy to spot at all major international food and nutrition conferences, including the United Nations Food and Agricultural sessions at Hot Springs in 1943. Currently, her staff is assembling a docket of material for the U. S. delegation to take to the third Inter-American Conference of Agriculture to be held in Venezuela this July.

Look at these figures

At a recent HNHE get-together, Dr. Stiebeling's staff, toasting and twitting her on her love of statistics, lined up her biography something like this:

Born on a farm in a State that has furnished the Nation 7 Presidents.

Received 3 college degrees (B. S., M. A., Ph. D) in a city with a population of 7,625,000.

Taught in a State that grows one-sixth of the Nation's wheat.

Traveled 33,520 miles to attend 5 international conferences and at the last one conferred with official delegates of 44 nations.

Can order dinner in 4 languages, though she modestly claims proficiency in only one.

Proves the sixteenth century poet's line that a low and gentle voice is "an excellent thing in woman."

Published 52 scientific articles and bulletins in the 15 years she's been connected with the Department.

Analyzed what 17,711 families eat 3 meals a day, 7 days a week, and found that one-third of the Nation in 1935-36 was in serious need of nutritional improvement.

Was the eleventh person to be selected by the American Home Economics Association to receive for her nutrition research a \$1,000 award by the company that sponsors the world's "talkingest" cow.

Is Chief of a Bureau with a personnel of 212 working to help the Nation's 30 million homemakers.

Recently, with the light of future plans glowing in her brown eyes, Dr. Stiebeling said to a Congressional committee: "We aim to give the homemaker the kind of help with everyday living that other branches of the Government give the farmer, the manufacturer, the merchant, and the wage earner."—RUTH VAN DEMAN, HNHE.

Parum lauda

PARUM LAUDA, vitupera parcius, Be sparing in praising and more so in blaming, says Ovid. Remember? Apparently most of us pay even more attention to the first than to the second part of the warning. But now and then—

The other day the USDA received from Miss Shirley Waterman, 223 Sedgewood Road, Springfield, Pa., the sort of letter that makes the day brighter:

This is a note of appreciation. It is difficult to write because I don't know exactly how to express my feelings; but I hope you'll understand. There is a Government experiment farm that I pass on the Pennsylvania Railroad a bit beyond Lenola, N. J. For some reason or other the fields on that farm seem greener and the buildings cleaner than those of the surrounding farms. To me that farm has become a symbol of my Government. In these days you hear so much about the complexity and inefficiency of our national Government, but I am proud of it, and have confidence in it, and I just wanted to tell you what your experiment farm means to one citizen.

Miss Waterman was thanked for her letter, and she granted us permission to use it in *USDA*, where it should be an encouragement to many more workers than could see it in her handwriting.

But who is responsible for this attractive station? Well, it is quite evident that credit should go to Charles H. Hadley, in charge, Field Laboratory, Japanese Beetle Investigations, Bureau of Entomology and Plant Quarantine, Moorestown, N. J.

Take a bow, Charlie, and our thanks for adding to the good reputation of our Department!

Reid on DBA

T. ROY REID, Director of Personnel, has been elected to membership on the Board of Directors of the Department Beneficial Association, succeeding the late W. W. Stockberger. Congratulations, DBA, for your wise choice!

The Beneficial Association is doing a fine job for Department employees, all of whom should know about its life-insurance plan. Organized in 1929, the association now has almost 16,000 members insured for over 24 million dollars. It has paid death and disability claims aggregating about 1½ million dollars.

In contrast to the method under which life insurance is usually purchased—where the insured pays a premium applicable to his age for the class of insurance granted—the cost to members of the association is the same regardless of age; that is, each member pays \$1 a month for each certificate. The amount

of insurance granted is governed by the age of the member on admission. For example, a member not over 35 years old is insured for \$1,000 and a member 50 years old for \$500, but both pay the same monthly dues. The amount of insurance granted remains the same and does not decrease as the member gets older. This insurance, *which is available to both field and Washington employees*, may be continued after leaving the Government.

Under certain conditions, disability benefits are included in the life insurance plan. The Association also makes real-estate loans on residential properties of employees in Washington, D. C., and nearby Maryland and Virginia, at a low interest rate. Starting from scratch, without any capital investment, it has in less than 16 years built up a reserve fund of over a million dollars. J. M. Kemper, Bureau of Dairy Industry, is Secretary-Treasurer of the Association, Room 2945, South Building.

We're proud

TWO RARE "events" have been added recently to the personnel file of Jim Livingston, Soil Conservation Service engineer in the Natchitoches area down in Louisiana. Meritorious promotion for "high achievement," meritorious citation for "outstanding services in protecting the safety and lives of your fellow-men during an emergency"—both are dated April last.

The Red River, swollen by heavy rains, had mounted—kept on mounting—until it seemed certain the levees would break. If the levees broke, the river would change its course to rush through its old Cane River channels with the city of Natchitoches in its wake.

Send us Jim Livingston to supervise this job! Thus the commissioners of the Cane River Levee and Drainage District said in an appeal to the SCS office.

Day and night the people of Natchitoches fought to save their town. It was Jim Livingston to whom they looked in this emergency. Somehow they felt he would know exactly what to do. For ten days and nights they followed with complete confidence the know-how directions of the SCS engineer. Build higher here, now stronger there, and keep on building. The dam held. The crest of the flood passed and Natchitoches was saved.

He saved the dam

SCS folks who know Jim well, and his friends around Natchitoches, were not

surprised when they learned he had saved the dam. He is just the sort of chap who would labor day and night for others and know what to do with water on the rampage.

The letter of citation, dated April 23, was signed by the Board of Commissioners of the Cane River Levee and Drainage District of Louisiana. It was addressed to H. B. Martin, SCS State Conservationist. "Jim really hit the ball all day and most of every night for about ten days," wrote the commissioners. "We just wanted you to know that we deeply appreciate his services here in Natchitoches and we likewise want to thank you for your courtesy in lending him to us during our emergency."

Only a few days before the flood, SCS had granted Jim Livingston a promotion for meritorious service. Here, too, he had gone beyond the call of duty. On his own initiative, Livingston developed a set of tables for the design of drainage or irrigation ditches, simplifying the designing procedure and greatly reducing possibility of error through elimination of several calculations. By creating these tables, Livingston has saved approximately 1,000 man-hours annually for engineers in SCS's Western Gulf Region. Copies of the tables have been sent to all other SCS regions for their use.

This distinctive honor, meritorious promotion, is but added proof of the genuine quality and worth of the man who saved the dam at Natchitoches.—**PHOEBE FARIS, SCS.**

Soil, Plant, Nutrition Lab

WHEN YOU READ that you should eat tomatoes as a source of vitamin C, does it ever occur to you that some tomatoes contain four times as much C as others? Under its animated and stimulating director, L. A. Maynard, long-time and present member of the Cornell faculty, the U. S. Soil, Plant, and Nutrition Laboratory (Bankhead-Jones) at Ithaca is finding out more about such differences in the nutritional value of our common foods.

This Laboratory comes directly under the supervision of the Administrator of Agricultural Research. It has a nice building of its own and some thirty employees. While it cooperates with the States, it is national in scope and is advised by a national board of distinguished scientific collaborators. Its fundamental aim is to discover the relationships between soil and growing conditions on the one hand, and the various

nutrients in plants and animals used as human food on the other.

The Laboratory focuses, at one point, sciences concerned with soils, climate, plants, animals, food processing, and nutrition. Its various specialists thus are decompartmentalizing and resynthesizing science. All problems are approached by the concerted effort of diverse specialists.

Consider those tomatoes, for instance. The vitamin C content of fruit from 28 commercial varieties may vary as much as 100 percent, even when grown side by side in the same soil. Yet lines can be produced by selection and breeding which are consistently higher in vitamin C than present commercial varieties. But fertilization and soil treatment seem to have little effect on the quantity of C in tomatoes.

The light does it

When the same variety of tomato is grown in different parts of the country, however, Dr. Karl C. Hamner, of this Laboratory, found differences of 50 percent in their vitamin C content. When soils from these diverse areas were brought to Ithaca and the tomatoes were grown on them, these differences vanished. It was next demonstrated that tomatoes grown in greenhouses during fall and winter contained but half as much C as those grown under the same conditions during summer.

So climate has a hand in this business. It may prove possible later to breed apples richer in vitamin C than tomatoes, but attention to climatic factors will carry this still further. Studies indicate that the carotene, vitamin C, and riboflavin contents of turnip leaves are affected by climate. The principal factor is light. Leafy material produced at the highest light intensity used in controlled experiments had eight times the vitamin content of that produced at the lowest.

Tomatoes grown in full exposure to the sun were found to contain a great deal more vitamin C than those grown in partial shade. When plants were transferred from sunshine to shade, the vitamin C content dropped. This is an important factor. A great deal more vitamin C should be carried to the table if tomatoes are picked after a few sunny days rather than after a period of cloudy weather; processing losses are small by comparison. For the Laboratory has carried tomatoes right through from variety tests to processing plant, to laboratory analysis, and to nutrition study.

A great field of investigation opens here, which includes the mineral content of plants and animals used for food, and possibly also their content of other nutrients required by human beings. Complete national surveys are being made of plant, animal, and crop deficiencies attributed to soil deficiencies. These are being mapped. The literature is being abstracted and recorded in great folders. Difficulties in reproduction on the part of certain North Carolina cattle, which, it proved, had eaten hay low in manganese, are under study. These are long-term but simply invaluable projects. We should be proud that basic research of such moment is being carried on in USDA.

From the mail bag

P. V. KEPNER, Extension Service, writes: "USDA, under your direction, has become a very humanized document as well as an instrument which is making a real contribution toward educating all of us regarding the widespread ramifications of the organization in which we work. You are doing an excellent job and are making a real contribution to the general welfare with specific reference to USDA. May the good work continue." Floyd E. Prentice, Farm Credit Administration, Kansas City: "Of all that has been written about the death of our great leader and the spirit of the American people, I think the three short paragraphs in the May 14 issue says the most in the fewest words of any that I have seen." Thomas E. Howard, Agricultural Adjustment Agency, Denver: "I am very grateful for USDA and enjoy each issue."

Earl P. Robinson, Agricultural Adjustment Agency, Durham, N. H.: "I always read USDA and in this office we aim to extract the last good flavor of each copy by passing it on to every member of our staff. I like its style of writing. I like the U. S. Department of Agriculture as it is revealed to us in the brief stories of remarkable men and women whose labors add to its record of distinguished accomplishment. I like the USDA that stands for teamwork, that insists upon high standards of performance, that is not afraid of criticism, and that fights for a fair share of recognition for what it has done."

Carson F. Mertz, Farm Security Administration, Harrisburg, Pa.: "Please be advised that we here regularly read the bulletin (USDA) and think that it is a source of up-to-the-minute information." Mary D. Baker, Seattle, Wash.: "Aside from the very fine scientific data it

(USDA) presents, the reports on USDA Clubs are interesting to us other members of local clubs, and I believe the historical and personnel material is also of great educational value to all of us."

Bosses again

OUR very first boss was Harry J. Patterson, now living in retirement at College Park, Md. He was then Director of the Maryland Agricultural Experiment Station; later he was also President of Maryland Agricultural College, which has now grown up to a university like the rest. We went to work at the station in the summer of 1910.

Two or three days later they turned the water off our laboratory for mysterious reasons known only to plumbers and pipefitters. We turned on the faucet in a sink, no water came, so we left it on in order to tell when the water returned. In fact, we left it on much too long. It was on when we went home that evening.

During the night the water came back. The sink outlet was partially stopped up. You guessed it—they were waiting for us next morning without smiles. The laboratory—an upstairs room in the old inn (of course George Washington slept there, and we did, too, a couple of drowsy summer afternoons), now restored to ancient glory and used as a faculty club—was flooded. It had generously flooded the office below, too.

We had not been there two minutes when Dr. Patterson showed up, calm and taciturn as usual. Immediately we began to explain how the disaster had been accomplished. Suddenly he broke in:

"I am not at all interested in how the accident happened, Mr. Harding. But I am very much interested in your taking measures to prevent the recurrence of any such thing or anything else that even remotely resembles it. *I don't like it.*" And out he stalked. We have been mighty chary ever since when using alibis. On occasion we had gotten away with them, but they can backfire terribly and we're permanently afraid of them.

Our early training

Our second boss was Claude S. Hudson, distinguished chemist. We were assigned to do research for and with him in the late fall of 1910 in the old Bureau of Chemistry. Confidentially, we knew as little about research as we did about transmitting lead into gold. But we went to it, in our way, which involved asking the boss every couple of hours what to

do next. Hudson took a very small dose of that and then he said:

"Now look, you have your assignment. It's your job to complete it. I don't care how you do it, but do it or don't do it and then report to me in full. There are authorities on the subject. Some of them are human beings alive now. Find out who they are and communicate with them. Some of them are books or periodicals. Find out where they are, what they are, and how to use them as tools. Don't you ever ask me a question until you have exhausted every other possibility. Understand?"

This sermon was delivered with a cold-blue-eye glare and a perfectly impassive face. We understood, though, and never to this day have we ever tried to see the boss or ask him anything unless we feel we positively have to. Our boss has always been a very busy man and we figured he'd like us better the less we bothered him, while he'd land on us like a ton of bricks if we fell down on the job. As long as he didn't roar disapproval at us, we assumed we were doing as well as could be expected. (Gosh, I hope he doesn't blow me down when he reads this before you see it!)

Picture stories

HAVE YOU noticed how many agricultural picture stories have been appearing in newspaper rotogravure sections during the past couple of years? Credit a quiet hard-working little crew in the Agricultural Adjustment Agency's Division of Information for part of the job. It's the Features and Visual Unit, headed by Roy C. Beckman, who gained his experience in the newspaper and publicity fields before entering Government service.

Because AAA feels that the job to be done is more important than agency credit, many of these full-page lay-outs have told the graphic story of peanuts, flax, soybeans, harvest, or other subjects with the Government "angle" credited merely to WFA. But all the work was done by the boys and girls of the F. and V. Unit.

Recently the story of flaxseed and linseed oil was vividly portrayed in a dozen big "roto" picture pages in Detroit, St. Paul, Minneapolis, Seattle, Omaha, Pittsburgh, Philadelphia, Cincinnati, Springfield, Mass., Washington, and other cities. Others were on Spring Comes To The Farm and Harvest More Seed, with more to follow. Each series of pictures is accompanied by a story and captions that tell why the subject is important, and compliment the farmers

of the Nation who are working so hard to keep up with wartime needs.

Proved results

The unit's writers and photographers also service numerous newspaper syndicates, small magazines, trade journals, and similar publications. Its artists turn out posters, illustrations, cartoons, newspaper mats, charts, and other "visual" help.

Without a clipping service to check on the use of most of its material, the unit has nevertheless been able to get an inkling through sample daily, weekly, and monthly publications. These samples, sometimes a 3,000th part of what is probably used, show annual figures indicative of enormous reader coverage. Rotos regularly using its releases, for instance, have a subscriber circulation of 11,221,752, with a probable reader circulation of about 45,000,000.

The unit's material has appeared in daily and weekly newspapers in 47 States, the subscriber list of 17,218,980 reaching 4 or 5 times as many persons. Articles appear in magazines with a total circulation of 33,428,650 that are seen by a good many more readers. The syndicates have clients numbering from several hundred to 3,000, which would swell these "sample" figures enormously.

Formation of a special group to handle this type of information is somewhat of a departure from the usual routine, but its success is a tribute to the foresight of Willard Lamphere, Director of AAA's Information Division.

Who does the work, anyway?

YOU MAY NOT consider your job important, but carelessness or indifference on your part may sometimes have far-reaching results. "For want of a nail the shoe was lost," runs the old proverb. "For want of a shoe the horse was lost, for want of a horse the rider was lost, and for want of a rider the kingdom was lost." All for the want of a mere horse-shoe nail!

Former Secretary Henry A. Wallace was once speaking to a group of clerical employees regarding Department activities. He said:

Now I suppose many of you here are in quite humble positions in the Department. You get down to work at a certain hour and you quit at a definite time. And you do your work in about the same way day after day. Just how important is your job to the Department as a whole? Well, sometimes I wonder as I sign the various papers and correspondence that pass over my desk. I ask

that this and that be done, and sometimes I try to follow things back. Who is it that really does the work? If I refer a matter to a Bureau chief, I know that he usually does not handle it himself. He refers it to a Division chief. The latter probably doesn't handle it either. Who does? Well, I suspect that in the final analysis the job very often gets back to one of the thousands like you—and gets done.

Whether a job gets done right may depend, then, upon some employee holding a relatively minor position. How it gets done may not only have far-reaching results for the Department, but may also determine whether that employee will continue indefinitely in the minor position.

Keep that horseshoe nail in mind!

—JOHN A. FERRALL, PISAE.

Regional Pasture Lab

DR. RALPH J. GARBER is Director of the U. S. Regional Pasture Laboratory on the campus of Penn State College. He is a readily articulate and informative talker. He is widely read, but, if you want to get an idea of his broad mental scope, you should hunt up his article, *Plant Breeding in Relation to Human Nutrition*, which appeared in *Science* for March 23. Possibly he can send you a reprint, if too many of you don't ask for reprints.

This Bankhead-Jones Laboratory undertook pasture investigation because the directors of 12 experiment stations in the Northeast thought their section ideal for pasturage and so advised. The Laboratory cooperates closely with these States. Originally intended to stick to pure or basic research, the war has naturally caused it to deviate into more practical investigations. It has a well-equipped building, a staff of 15 or so, and some 50 acres of the Penn State farm to use for field trials.

Breeding of grasses and pasture management here go hand in hand, with soil specialists, geneticists, chemists, plant physiologists, and agronomists combining forces. The old pasture plants, Kentucky blue grass and white clover, have been bred to better drought resistance, but many new, taller, and more versatile grasses, good fresh as hay or in silage, are now under study—orchard grass, brome grass, and ladino clover among them.

The basic idea is to get good continuous pasturage throughout the season, with one grass so following another that there is always nutriment for the animals. The deeper-rooted grasses resist drought better, which explains why they are under trial, but many sward-man-

agement problems remain unsolved insofar as they are concerned. Pasture management and grass breeding are studied in three large greenhouses as well as on the outdoor plots.

Well-bred grasses

Grass breeding is quite a difficult problem, too. Compare it with corn breeding. Corn is bred for the seed, but pasture grass is bred primarily for the vegetative part of the plant, and plants with succulent vegetative parts may not make the most or the best seed. Again, grasses are not diploid but polyploid plants, hence there are more genes and chromosomes to watch, monkey with, and try to control than in corn. Finally, pasture grasses must be bred to grow successfully in association, hence the question arises what this grass will do when grown with that, and so on.

Incidentally, though you may not know it, the turkey is quite a grazing animal. Paul H. Margolf, who works on poultry husbandry at Penn State, says that when you provide turkeys with better, fresher grass, they lay better, their eggs hatch better, and they voluntarily cut down on the mash they consume. Grass mowed on the putting greens of golf courses is ideal; it contains as much protein as skimmed milk, but cannot be produced economically, of course. The grasses this Laboratory studies also please the turkeys.

The lab is under the supervision of the Bureau of Plant Industry, Soils, and Agricultural Engineering, and works in close cooperation with the Penn State staff.

Brief but important

Farm dreams: The best thing to put in the hands of veterans or others who think of working at town jobs while living out in the country and doing a little part-time farming is the small pamphlet, *If You're Thinking of a Little Place in the Country*, by A. B. Genung, Bureau of Agricultural Economics.

A new book: Recommended for all USDA people is *Tin Horns and Calico*, by Henry Christman. It is a history lesson as well as a thrilling tale, for it records the dramatic final chapter of the struggle of the people of the United States against undemocratic and feudal practices with regard to the possession of land. The setting is New York State; the time, the 1840's.

Cheers for Vermont: Harry Mileham, Extension Editor for Vermont, recently sent in a clipping from that State. It told of an experiment in racial relationships carried on by Bruce R. Buchanan, Windham County 4-H Club agent. For the past 4 years young per-

sons from another country or race have been guests at Camp Waubanong, when the annual, 1-week club outing occurs. In 1941, two Jewish refugees from Austria and two fugitives from bombing in the United Kingdom were the guests. In 1942, one refugee returned with his sister, who had bicycled across France just ahead of Nazi hordes. In 1943, the guests were a Negro boy and girl from Harlem, and last year a Japanese-American girl was entertained. Such contact and understanding between nations and races makes the democratic melting pot what it really should be. They help destroy fears and prejudices. Cheers for Vermont.

What is PDT? PDT is no relation to DDT, but stands for Program Development Training, a new training program worked out by the Training Within Industry Service of WMC. At a recent USDA Training Council luncheon, Walter Dietz, Associate Director of TWIS, discussed this program, which he said is a "problem solver technique" for industry. Briefly: The first step is to "spot and analyze the problem" specifically to see if any training need is involved; develop a specific plan to meet that need; get the plan into action; check and double check the results. Some 20 USDA people have taken PDT and are qualified to work with officials in developing training plans to meet specific operating problems. Ask the Division of Training, Office of Personnel.

Physchodietetics: All personnel interested in the broader aspects of putting the newer knowledge of nutrition to practical use among our people everywhere will find something they want in *The Psychology of Diet and Nutrition*, by Lowell S. Selling, M. D., and Mary Anna Ferraro, M. S. This is an intelligent discussion of the basic psychology of nutrition as applied to normal people, both adults and children, as well as to those suffering from neuroses, psychoses, and mental disturbances. It also contains invaluable suggestions on how best to put the nutrition message over.

Representative Bureaucracy: All who are interested in better management and improved administrative procedure in government should read the book of this title, subtitled "An Interpretation of the British Civil Service," by J. Donald Kingsley, also editor of the *Antioch Review*. Indeed, the reading would be helpful and informative for any Government employee. Of particular interest are passages which tell of the interesting transition in the functions of civil servants during recent years. The trend toward service or "action" agencies is marked everywhere. More and more, in all countries, Government employees become people who do things, rather than merely offer opinions or advice and write memoranda and reports. This requires practical people trained for specific jobs. The evolution and development of the British Civil Service offers many illuminating points relevant to our own.

McCormick Medal: Charles A. Bennett, mechanical engineer in charge of research on cotton ginning at the U. S. Cotton Ginning Laboratory, Stoneville, Miss., since its establishment in 1930, received the McCormick Medal June 5 at the annual dinner of the American Society of Agricultural Engineers in Chicago. The honor was first provided in 1931 by descendants of Cyrus Hall McCormick, inventor of the self-rake reaper. It is awarded for exceptional and meritorious engineering achievement in agriculture. One of Bennett's outstanding achievements is

his cotton-drying process which prevents deterioration and results in a higher grade of fiber while reducing the time and cost of ginning.

Farm site for G. I. Joe: James H. Wills, of West Haven, Conn., in a letter referred to the Department, says: "For some time I have had in mind setting aside from my 75-acre farm in Connecticut a plot (gratis) suitable for the erection of a house and home solely for the benefit of some returned service man and wife . . . I am in hopes of finding some party who can accept my offer . . . I had hoped to be a pioneer in a movement among farm owners which would have placed at the disposal of men, who have done so much for their country, many, many homes at a cost to each individual farmer which would be trivial . . . Where conditions were, as in my case, favorable, I believe the idea would have merit and in many cases be of distinct mutual benefit to both the farm owner and the men it would help to locate."

Leave without pay: A great number of men who are our own employees or who have close relatives working in the Department will be receiving furloughs home. It is highly desirable that the environment of these furloughs be as normal and as enjoyable as possible. It is the policy of USDA-WFA to be liberal in granting annual leave and leave without pay to employees who want to be with members of the armed forces during their furloughs. Personnel Circular 107, Revision II, Supplement 5, issued May 15, says that leave without pay may be approved (for a period not exceeding 11 months) for the duration only to persons having "urgent and unusual reasons for requesting it." "The desire to be with members of the armed forces on furlough shall be considered an urgent and unusual reason for requesting leave without pay," says the circular. For more details, ask your personnel officer.

Blood flows: Blood flows freely around Washington—to the Red Cross blood bank. Elizabeth Macintyre and Joe Bertolini, both of the Division of Service Operations, Agricultural Adjustment Agency, have donated 2 gallons each. Each has given about 4 pints more of blood than are in the average body at one time. "We feel better physically and mentally," they declared in recommending blood donating for health as well as for patriotic reasons. In addition to her blood gifts, Mrs. Macintyre for the past 2 years has invested 20 percent of her salary in war bonds and is a Red Cross nurse's aide.

Big cheese: This does not refer to your boss, now. It really was a cheese, presented to Thomas Jefferson while he was President. It was 4 feet 4½ inches in diameter, 15 inches thick, and weighed 1,230 pounds in August 1801. It was described as "an ebullition of republicanism in a state where it has been under heavy oppression." If interested, see *Agricultural History* for October 1944, p. 149, and for January 1945, p. 20.

U.S. does it better: A recent conversation with a Canadian cattle grower and a veterinarian in private practice in Canada indicated considerable acquaintance on their part with outstanding scientific achievements of our workers in the Bureau of Animal Industry. In fact, the cattle grower kept saying, "When it comes to agricultural aid by Government, you do it better in the U.S. in every way than we do." Of course Canada has no rabies, no hog cholera, and none of some other animal ailments which

devil us persistently, but these two men thought we did a great job of coping with the problems that confront us here.

All but the crackle: Do you eat peanuts in bed and stuff the shells down at the foot? Whether you do or not, the Southern Regional Research Laboratory at New Orleans, and the Northern Laboratory at Peoria, have now found ways to use all of the peanut except the crackle made when you shell it. First the oil is extracted, leaving a high-protein meal that is not only highly nutritious for livestock but also valuable industrially in making adhesives, coatings, sizings, and fibers. The waste liquor contains 1 percent of sugars which can be fermented with a food yeast to make a high-vitamin protein feed. Finally, the ground hulls can be combined with other materials to make a fine cork substitute.

Cotton competition: Cotton has been adapted to many new uses and faces competition from a large number of other materials, including other natural and synthetic fibers, paper, leather, metal, wood—and even hot air, James A. Klime, Bureau of Agricultural and Industrial Chemistry, said recently in discussing wartime research at the Southern Regional Research Laboratory. "Hot air is competing with cotton in the form of those devices for drying your hands and face that sometimes take the place of towels in washrooms," he said. Scientists at the Southern Laboratory are firmly convinced that there must be a great expansion in research on cotton by both private and public institutions if cotton is to maintain its present position.

School-lunch program: The WFA school-lunch program gets long-range results. In Wilmington, Del., balanced lunches have been served under this program since January 1944. Records in one grade of a junior high school showed that children who ate the school lunch regularly gained an average of 6 pounds; those who had it only occasionally averaged a gain of 4 pounds; and those who never ate it gained only 2 pounds. In Missouri, studies showed that children getting school lunches under this program regularly raised their grade points an average of 9.23 percent, but those not getting them lowered their grade average .09 percent.

July 9, 1945

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USDA

FOR JULY 23, 1945

Exit WFA

AN EXECUTIVE ORDER No. 9577, dated June 29, to take effect at the close of business on June 30, 1945, terminated the War Food Administration and transferred the functions of the War Food Administrator to the Secretary of Agriculture. This Order terminated Executive Order No. 9334 of April 19, 1943.

The records, property, personnel, funds, and agencies of WFA were thus placed under the jurisdiction and control of the Secretary of Agriculture. WFA agencies can, consistent with applicable law, be organized and administered as the Secretary deems desirable.

All orders, directives, rules, and regulations relating to any matter within the scope of the authority of the War Food Administrator, and in effect at the close of business, June 30, continue in full force and effect unless and until modified, revoked, or otherwise changed by the Secretary.

Six days after Pearl Harbor a major reorganization of the Department took place to streamline it for the war effort. A second major reorganization took place December 10, 1942, when the Food Production Administration and the Food Distribution Administration were established.

A Presidential Executive Order dated March 26, 1943, directed the consolidation of FPA (except the Farm Credit Administration), FDA, Commodity Credit Corporation, and Extension Service into an agency to be called the Food Production and Distribution Administration, but which was renamed the War Food Administration in another Executive Order issued April 19 following.

Secretary Anderson's Memorandum No. 1106, July 3, 1945, went more into detail than the Executive Order regarding the consolidation of WFA and USDA. It also announced the names of the Assistants in the Office of the Secretary and of the Committee on Organization. Milton Eisenhower is chairman.

Two-gallon club

IN *USDA* for July 9, page 8, we mentioned Elizabeth Macintyre and Joe Bertolini, of the Agricultural Adjustment Agency, who have donated 2 gallons of blood to the Red Cross Blood Bank. There are five other Washington employees who belong to this exclusive club: Walter Larrimer and Ivan Sims, Forest Service; Katherine Rowland, WFA; Charles Hufnagel, Bureau of Dairy Industry; and Amanda Halford, Office of Foreign Agricultural Relations.

There is one 2-gallon donor among field employees; Bessie M. Broadbent, Bureau of Entomology and Plant Quarantine, Whittier, Calif. There may be other 2-gallon donors in this field. Are you one, or do you know of someone?

On June 14, at a ceremony in Washington, W. A. Minor, Assistant to the Secretary, and Judge Marvin Jones, then War Food Administrator, presented certificates to the bureau blood-donor chairmen for their respective gallon donors, a group which includes more than 200 Washington employees and some 150 people in the field.

An explanation

RATHER FREQUENTLY, when he is on field trips, the editor is asked why *USDA* doesn't say more about legislative rumors and bills introduced in Congress, which have special interest for lower-salaried employees—hour and wage legislation, hiring and firing, classification of employees, holidays, cuts and increases in appropriations, retirement and pensions, and general working conditions.

We do not give progress reports on such proposals and rumors, primarily because *USDA* is of necessity a miniature magazine or fortnightly periodical, not a spot-news sheet. Secondly, our space is so limited that it is about all we can do to give our far-flung person-

nel accurate abstracts of final actions taken.

It takes from 3 to 4 weeks for material to appear before you in *USDA* (longer, if you are far West) after it has been submitted in manuscript. We can make last-minute changes only to get the most important news to you sooner, and then it is in capsule form. Meanwhile rumors are a dime a dozen and daily changes occur in the status of bills on their way through committees and through both Houses of Congress. Only a daily newspaper columnist could hope to keep up with such progressive transitions.

We reason that you most want to know what finally happened. We therefore use our limited space for factual reports on the ultimate action, regulation, or law. We try generally to screen out ephemeral material and stick to matter that will have some permanent value—three weeks or more later when you see it in print. Thus we operate at magazine, not at daily-news pace. Does this seem reasonable and satisfactory to you?

Civilian, stay home!

THIS very probably means you. Director Johnson of the Office of Defense Transportation, asks us to reduce travel to a bare minimum. It took almost four years to move our three million troops to the European theatre. Now they are returning, fast, some to leave the armed forces, many more to take furloughs and then go on to the Pacific theatre. That means the greatest strain in history on our already creaking transportation system.

As a result facilities for civilian passenger transportation will be greatly reduced. Sleeping-car capacity will be cut in half on regular trains. Cooperation and self-denial on the part of civilians will be required. We in the *USDA* must:

1. Undertake no official travel unless absolutely necessary;
2. Curb the tendency to hold and attend conventions;
3. Especially avoid travel lanes to the West Coast;
4. Stay home during vacation;
5. Refrain from visiting returning soldiers in port cities or in disposition or reception centers.

Anyone who thinks he has to travel between now and VJ-day should remember that his trip will inevitably hamper the conduct of the war, and may delay or inconvenience a returning soldier. Think before you go and then don't go!

Especially meritorious

WITHIN-GRADE pay increases for "especially meritorious" service went as follows for the period January 1 to March 31. Gordon D. Fox, Forest Service, for conducting surveys and organizing production of cinchona products in Peru, to the benefit of a war activity essential to the health and welfare of our armed forces. Mary B. Hall, Agricultural Adjustment Agency, for voluntary research in compiling and editing the Correspondence Style Manual.

Sara A. Staley, also of AAA, for organizing and conducting a class in shorthand to assist employees to qualify as stenographers. T. S. Buie, Soil Conservation Service, for making a systematic study to determine the relation between church development and maintenance and the condition of the land. USDA's Editor, for initiative displayed on the USDA, so that the publication has made outstanding contributions to management programs and increased the prestige of the Department.

Sybil L. Smith

THE RETIREMENT on June 30 of Sybil L. Smith, principal administrator on foods and human nutrition in the Office of Experiment Stations, brought to a close a unique career in the Department extending back to 1918. In that year Miss Smith, then professor of chemistry in Milwaukee Downer College, joined the abstracting staff of the Experiment Station Record, breaking a precedent of nearly 30 years by becoming the first woman to be employed in a technical capacity on that journal.

Her original assignment was in agricultural chemistry and agrotechny. This later included biological chemistry, veterinary medicine, foods and human nutrition, and more recently home economics education, textiles and clothing, and home management. She has become widely recognized as an authority on the literature of foods and nutrition, especially vitamin research, on which subjects she has written extensively.

The passage in 1925 of the Purnell Act, providing for home economics investigations by the experiment stations, brought new opportunity for leadership in development of this research. In this capacity, Miss Smith widely influenced experiment station and other home economics workers. She has been active in the Association of Land-Grant Colleges and Universities and many other organ-

izations. In 1938 she served as the representative from the United States in a conference on national nutrition sponsored by the League of Nations and held in Geneva. During the war she has helped to promote cooperative research by the experiment stations in nationwide studies on the nutritive values of foods.—H. L. KNIGHT, OES.

He did it again

NOW SINCE Ben H. Nicolet, of the Bureau of Dairy Industry, has been awarded his annual spring medal, another year must have passed before we were aware of it. We—the editor—like to write about Ben because in a sense he took over a job we vacated in BDI in 1928, and he not only made a position out of it, but he has been consistently doing research of great distinction and value ever since. We yearn to shine in his reflected glory.

Last year Ben got his medal March 9—the Hillebrand Award. (See USDA, April 15, 1944.) He was a little later garnering the spring crop this year, but was presented with the Borden award for research in the chemistry of milk at the May 10 meeting of the Chemical Society of Washington. Since he seems to be making a habit of this sort of thing, we can perhaps save time by saying a little about him here.

He came to BDI from the University of Chicago some 16 years ago. Before coming to USDA he had made outstanding contributions to the chemistry of fats and to other fields of organic chemistry. His work in BDI has contributed to our knowledge of the nutritional value of milk proteins, the composition of the proteins in feeds, and the use of casein and other proteins in the manufacture of artificial fibers.

Proteins are complex organic compounds composed of chains and varied combinations of a score or more simpler compounds called amino acids. Nicolet has developed new analytical methods which enable chemists to find out more about the composition of proteins than they have known hitherto. His methods are now widely used in other laboratories and have aided in the solution of a number of tough industrial problems. His findings have also been extensively utilized in work concerned with industrial applications of casein.

His familiarity with the individual caprices and eccentricities of other amino acids is extensive. The very names of some of the compounds he studies would throttle a layman and send him howling for a technical dictionary. But it adds

up to fundamental research of lasting value, the foundation rock upon which all scientific and technical progress rests. Those capable of dealing with Ben's large-bore technical vocabulary will find details in his more than 60 published papers. Such scientists as he really honor the Department more than we can possibly honor them.

The Borden award—now supported by the Borden Co. Foundation, a nonprofit organization—goes annually for outstanding research in the chemistry of milk. It comprises \$1,000 in cash and a gold medal. Dr. Nicolet received his A. B. at Kansas University; his Ph. D. at Yale. He has one daughter in our Office of Personnel, and another taking graduate work in Cornell University Medical School.

An old man dies

TO MANY of his neighbors and acquaintances he was just an old man, a retired Government employee who did something or other . . . seems it was with fruit trees . . . but it was so long ago, nobody remembers. However, a lot of people remembered that the old man, Dr. Merton B. Waite, was one of the Department's greatest scientists of all time. He was born at Oregon, Ill., January 23, 1865, and died in Washington, in retirement, June 5, 1945.

Dr. Waite graduated from the University of Illinois in 1887. For a year he was assistant to Dr. T. J. Burrill, who discovered that bacteria caused plant, as well as animal, diseases. In 1888, Waite became assistant pathologist in the old Division of Vegetable Pathology. This became the Fruit and Vegetable Disease Investigation Unit of the Bureau of Plant Industry when it was formed in 1901. He remained in charge of this work until his retirement in 1935. Dr. Waite's researches were of outstanding importance to horticulture.

The keen observation which led him to discover how insects transmit plant diseases—pear blight in this instance, and honeybees, the carriers—was described in USDA for January 8, 1944, page 4. This was a discovery of enormous moment in the plant field. It was originally described in the Proceedings of the American Association for the Advancement of Science (40:315, August, 1891), at just about the same time that Theobald Smith and associates, in the Bureau of Animal Industry, announced their discovery that ticks transmit cattle-tick fever—another fundamental finding of USDA "bureaucrats."

Vindicated by science

While some denied the authenticity of Waite's discovery, it was amply proved later and fully accepted by science. Those interested may find the following references helpful: Proceedings of American Association for the Advancement of Science 47: 427-428, 1898; USDA Yearbook, 1895 (1896) pp. 295-300; California Cultivator 18: 390-391, June 20, 1902.

In addition, Waite's work on cross-pollination of fruit varieties was outstanding. Before it was completed, fruit varieties were not mixed in orchards but were grown in segregation. Waite proved that mixing varieties improved both yields and fruit quality of apples, pears, sweet cherries, and others.

Dr. Waite was a charter member and twice president of the Botanical Society of Washington, D. C., and a fellow of the American Association for the Advancement of Science. He was also a charter member of the American Phytopathological Society, was starred in American Men of Science—a high honor in itself—and was awarded the honorary degree of Doctor of Agriculture by the University of Maryland in 1919.

Anatomizing a mountain

ABOUT 35 miles east of downtown Los Angeles lies the pleasant city of Glendora, in the heart of the sun-kissed citrus belt. Here is the headquarters of the San Dimas Experimental Forest, one of the most interesting of the Forest Service's many experimental areas. At San Dimas, a mountain laboratory of 17,000 acres, FS men are investigating the influences of vegetation on rainfall run-off—the most crucial conservation problem in southern California.

The metropolitan area of Los Angeles, with its 1,500,000 people, is not only hard put for water—it has just completed an aqueduct to fetch water from the Colorado River, 200 miles away—but also is racked by mountain fires and floods which periodically take many lives, destroy much property, and erode precious soil. FS hopes to find effective remedies for floods, irregular water, depleted ground water supply, mud, and debris flow and erosion.

The San Dimas forest is the world's foremost watershed laboratory. Here scientists spend their days (and often nights) studying things which many an ordinary citizen takes for granted—precipitation, run-off, muddy water, vegetation, soil, and percolation of water.

To do all these things requires lots of equipment and gadgets, and the San Dimas forest has a considerable number of them. These are 4 complete climatic stations, located at elevations of 1,500, 2,700, 4,250, and 5,100 feet. Spaced a half mile apart are 370 rain gages—more than in any similar area in the world. There are also stream-gaging stations with flumes and weirs to measure the amount and rate of flow. Retaining basins have been built to catch and measure the amount of debris that piles up in the canyons as a result of the rains that sweep over the mountain.

Vecto-pluviometer, no less

Most spectacular installations are 26 concrete lysimeters. These are huge soil-filled tanks, each as big as a Government girl's bedroom and twice as full. Every lysimeter is connected with 3 large subterranean tanks that collect and measure rainfall run-off and seepage. To house all of them requires a 307-foot tunnel.

Numerous plots have been set aside on these wonderful mountain slopes for more intensive studies. Some plots are kept in normal cover (chaparral, a scrubby growth of shrubs or dwarf trees), others are kept denuded, and still others are burned periodically and then allowed to return to natural cover. At the base of each plot is a concrete trough for catching run-off by means of a cleverly devised tipping bucket. Every time one-tenth of a cubic foot of water is collected, the bucket tips and the impact is recorded electrically by a moving finger on a chart. Another interesting gadget is the "vecto-pluviometer," meaning measurer of amount and direction of rainfall.

As you can see, the data collected with the help of all these instruments, installations, and experimental plots (I haven't exhausted the list by any means) tell us a lot about how a mountain ticks—most everything, in fact, that has to do with the forces which influence the water cycle.

The San Dimas Experimental Forest is 10 years old. Many papers embodying the results of research have already been published. Thus, new vistas have opened upon the behavior of rainstorms, the healing of burned-over, chaparral-covered mountain soils, and the control of floods in the Sierra Madre mountains.

The rainfall and run-off data are used currently—in fact, every half-hour during a storm—by Army engineers in determining how to operate their flood control dams in the southern California

coastal basins. In this manner does FS patiently assemble facts and find clues to some of Nature's more erratic behavior problems.—ANTHONY NETBOY, FS.

Our Graduate School

NOT INFREQUENTLY we run across persons quite learned agriculturally and educationally, who have never heard of our USDA Graduate School. Others who have heard of it know little of its history, evolution, legal justification, and magnitude.

The Graduate School was established in 1921. Secretary Henry C. Wallace announced: "I believe those who may be able to avail themselves of this opportunity will both enrich themselves and enhance the value of the service they render." At its inception GS offered 10 courses, had a staff of 10 instructors, and enrolled 213 students. Its purpose was to improve public service by increasing employee usefulness and to demonstrate that work and study could be happily blended.

The organic act creating the Department, approved by President Lincoln May 15, 1862, declared that the general designs and duties of the new agency were "to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture *in the most general and comprehensive sense of that word.*" This action of Congress alone appears to validate the existence of GS.

On subsequent occasions Congress has expressly directed several Government agencies, including USDA, to afford the use of their facilities for educational purposes to scientific investigators, students, graduates of institutions of learning and other qualified individuals. The legal position of the school therefore rests upon adequate statutory foundations, buttressed by usage, precedent, and judicial interpretation of administrative discretion.

The school headquarters occupy space in the south building, and many of our conference rooms and offices become its after-hour classrooms. It now has a faculty of almost 200, offers 200 courses, and had a 1944-45 enrollment of 5,500. It is in effect a graduate school, an in-service training agency, and an adult educational institution all in one. It is devoted exclusively to the needs of the Federal Government. It does not grant degrees, but its courses are of collegiate grade.

A ladder to success

GS provides an intellectual ferment and a spur to self-improvement in this great bureaucracy. Courses range from cultural to educational, and special series of lectures attract and instruct many who do not take the regular assembled courses.

GS has a General Administration Board appointed by the Secretary. It is administered by a director, appointed by the board, and a small administrative staff. Neither board members, nor members of the eight committees named by it to advise on the administration of each of the school's eight major divisions, receive compensation, and the school receives no Federal funds. Its operating expenses are paid from small course fees.

In recent years about 12 percent of the USDA employees in Washington have been enrolled. The cumulative beneficial effect of this influence is already notable. The relation of the school's program to departmental management is recognized by a secretary's memorandum which names the director of personnel ex officio chairman of the school's administration board.

The school's faculty is drawn almost entirely from the Federal service. This offers an unexcelled reservoir of talent and experience, professional competence being the sole criterion of selection. We have here a really extraordinary institution which now also offers correspondence courses to field personnel. If you want to know more about it, write to Eldon L. Johnson, the Director.

A librarian retires

THE National Horticultural Magazine for October 1944 carried an interesting article, by P. L. Ricker and Magdalene R. Newman, who has had charge of the Department Library's splendid collection of nursery and seed-trade catalogs, now numbering about 70,000, many from foreign sources, and quite a few that are extremely rare. Miss Newman retired May 31.

She had been doing Federal library research since 1911. In 1918 she joined the staff of what is now the Division of Fruit and Vegetable Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering, to begin work on this collection—work that from the beginning proved extremely helpful to research specialists tracing the history of varieties. Recently the collection has been useful in connection with the Victory Garden program.

Miss Newman, who for the past 3 years had been more definitely aligned with the main Department Library, though continuing her work for PISAE, had a B. S. degree from George Washington University, and was the author of *Plant Patents: A Brief Historical Survey*, with References, published in 1931. She also prepared *Horticultural Organizations of the United States and Canada*, and *Organizations Dealing with the Handling and Merchandising of Horticultural Products in the United States and Canada*—issued as mimeographs biennially or as often as the demand required—publications that have been requested by a constantly growing clientele.

But it is the nursery and seed-trade catalogs, with their comprehensive indexes, that will stand as an impressive memorial to the intelligent and painstaking work of Miss Newman. Literally scores of research men and scientific authors have leaned heavily on the data supplied by this collection.—JOHN A. FERRALL, PISAE.

Brief but important

Farm boy makes good: Secretary Anderson has appointed Nathan Koenig as his executive assistant. Nate has had considerable Government experience, though he comes to his present assignment from his position as agricultural editor for U. S. News. Raised on a New Jersey poultry farm, he graduated from the University of Connecticut in 1930, majoring in agricultural economics and animal husbandry. He was author of the Connecticut Milk Marketing Act passed by the legislature of that State in 1941. Coming to the Agricultural Adjustment Agency in its early days he spent a decade there and in information work in the Agricultural Marketing Administration. Everybody likes him and he fits nicely into the picture.

Economist canner: A blue ribbon and a red one were won by Mrs. Esther Phipard, food economist of the Bureau of Human Nutrition and Home Economics, when her home-canned tomatoes and peaches appeared recently at the Washington Stage Door Canteen's Flower and Victory Garden show. The benefit show's proceeds will help the canteen feed and entertain G. I.'s. Says Mrs. Phipard: "One more job to keep in mind for home canning—besides conserving food and blue ration points—is to let your best jars take a bow at food fairs to help some good cause."

Trainee jobs for handicapped veterans: At a recent meeting of the Department Training Council, John McDiarmid, Assistant Chief of the Examination and Personnel Utilization Division, Civil Service Commission, discussed CSC Circular 522, on trainee positions and rehabilitation training of vocationally handicapped, disabled veterans. CSC feels that both the veteran and the Government agency will benefit if he is employed as a trainee, with the object of being placed later on the permanent rolls. For more details, ask CSC in Washington or CSC regional office.

Orientation talks: Reasoning that almost everybody has interest in origin and evolution of the institution for which they work, the USDA editor some time ago prepared a talk on the history of the Department for use in addressing USDA Clubs. It is also used at each orientation meeting for new employees in the Department's Jefferson Auditorium about every month. It is now illustrated with 60 or 70 slides, some of them giving rare historical views dating back to the Department's very beginning. There is a companion talk on the Department's most outstanding research scientists and their achievements. Should groups of employees in the various agencies in Washington be interested, either of these talks can readily be given in small conference rooms using any small projector for 2 by 2 slides. Don't all speak at once, but the editor will perform on command, provided requests do not pile up too rapidly.

Price Committee: Office of Price Memorandum No. 2, Revision 1, issued June 12, reestablishes a Price Review Committee to assist the Director of Price in coordinating and supervising activities relating to price-support programs, price-stabilization operations, and approval of maximum price regulations. The Director of Price is chairman of the committee, which includes the Chiefs of the Bureau of Agricultural Economics and of the Agricultural Adjustment Agency; Director of Marketing Services, President of Commodity Credit Corporation; Directors of Basic Commodities and of Supply, CCC; Director of Finance; and Solicitor.

Wrong again: Patrick C. Mullen, Office of the Solicitor, writes that the documents followed in preparing Our Seal and Flag, June 11 USDA, were in error in the important matter of implying that the Secretary of Agriculture is in line of legal succession to the Presidency, the four stars notwithstanding. After the Vice President, succession runs as follows: Secretaries of State, of Treasury, and of War, Attorney General, Postmaster General, Secretaries of Navy and of Interior. There it stops, though it seems probable that the Secretary of Agriculture would be called upon to succeed in the event of a holocaust. However, the law makes no such actual provision, which shows you can't always trust the most impressive looking documents.

July 23, 1945

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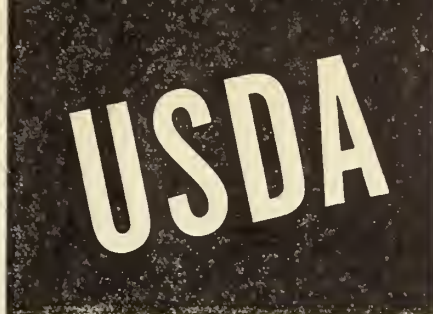
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FOR AUGUST 6, 1945

At Jackson, Miss.

MOST OF the Department agencies in this small and attractive city are all together in the Masonic Temple, a large building a few blocks from the center of town. The USDA Club there has just been rejuvenated, and has a new president, S. C. Cooper, of Agricultural Adjustment Agency, who intends to make a go of it—or else. Possibly 75 of the potential 100 members attended when the editor gave a talk there June 27, and over 100 attended the enjoyable picnic later that evening, held in a park on the city's outskirts.

Spirits were high. Everybody loved everybody. Agency bickering simply didn't exist. You felt that every employee regarded himself or herself as part of the USDA, not so much as of an agency. C. B. Anders, State conservationist, commented on this at some length. There are 53 Soil Conservation Districts in Mississippi, organized into 15 groups, so he has his hands full, but he says every agency there helps every other agency in the most friendly way, and close cooperation exists all along the line.

This friendly, voluntary cooperation is the height of democracy. Soil Conservation Service and AAA do not overlap here or elsewhere in work in the soil-erosion field. The former supplies the technical assistance; the latter makes materials available for use in soil conservation. SCS assists the districts in carrying out their programs, and also aids the farmer to plan what he should do with each individual plot of his to serve both himself and his district to the best advantage.

SCS advises and gives technical assistance; AAA helps make farmer cooperation feasible by payments, by the provision of seed and materials, and by helping farmers contract with private individuals who have the equipment to do the work required to save soil. Top SCS officials sit in at AAA conferences, taking part not only in the making of

plans, but in the arguments preceding agreement, and the latter means real democratic cooperation from the ground up.

Era of good feeling

Mississippi also has a State Agricultural Workers Council, which grew out of a real need that occasional conferences between two or three individuals could not supply. It meets regularly and discusses all apposite problems. Those represented on it are SCS, AAA, Farm Security Administration, Forest Service, State forest and park people, State health service, State Department of Agriculture, experiment station, farm organizations, State extension service, teachers of vocational agriculture, and others as need arises.

Incidentally, local farmers like H. H. Bennett, of SCS, because, they say, he's no stuffed-shirt bureaucrat who sits in a big car and nods his head. He's a mud-wader, not a car-sitter. He's one of the boys, searches out facts for himself, and they think he's great. "Queer sort of bureaucrat," said one farmer, "but I like him."

Russell E. Ray and his administrative assistant, R. C. Slye, in FS, tell about 2 million acres of national forest in this State, half of it owned by the Federal Government. The State is oil crazy and FS collected over 2 million dollars last fiscal year on options, a business it got into sideways and doesn't like any too wholeheartedly.

FSA programs have contracted because clients are paying up, but the staff has shrunk still faster and the survivors are plenty busy. Thomas Milton Patterson, AAA, told us it had 400 employees a while back, then 200, now about 40. AAA does about 19 different kinds of things, in addition to its old jobs with acreage allotments, yields, and marketing agreements which may recur.

It deals also with cotton payments, crop insurance, dairy-production and meat-production payments, conservation work, goals, price support and lumber

programs, rationing and priority assistance, farm transportation, certification of eligible vegetable processors, war board and selective service, fertilizer program, disposal of surplus war property—and so on, and on! Patterson also emphasized the fine spirit of interagency cooperation here. All told, Jackson, Miss., USDA people do a swell job.

The pay act

FEDERAL employees received their first increase in basic pay rates since the Welch Act of 1928 when the Federal Employees Pay Act of 1945 went into effect July 1. Highlights of the act are stepped-up within-grade promotions, true overtime rates at time and a half up to \$2,980, a new basic workweek of 40 hours with Saturday the overtime day, and a provision for paying night differentials now and holiday differentials after the war. Appreciation goes to Sen. Sheridan Downey and Rep. Henry M. Jackson for introducing the necessary legislation and to Chairman Robert Ramspeck and Civil Service Commissioner Arthur S. Flemming for their efforts to secure its passage.

The Civil Service Commission has issued regulations for administration of the pay act. The Department is issuing instructions based on the act and the regulations. A memorandum is being sent to all employees explaining the effect of the new act on their salaries, together with a copy of the new GAO salary table.

An average increase of 15.9 percent over the old rates is effective. Individual rates may be computed by adding a 20-percent increase to the first \$1,200 of the old rate, 10 percent to the next \$3,400, and 5 percent to that part over \$4,600. Any employee earning \$1,800 or less is guaranteed a rate not less than his salary on June 30, 1945, plus \$300 or 25 percent, whichever is less. However, until overtime goes out, this provision will not need to operate.

By virtue of the act, President Truman recommended to most agencies, including USDA, that a basic workweek of 40 hours go into effect and at the same time he reduced the overtime from 8 to 4 hours. The workweek in the Department begins Monday and ends Friday, with Saturday as the overtime day, with local exceptions. Employees not reporting for work on Saturday are not charged with annual or sick leave, but do not receive overtime pay for the 4 hours. With the establishment of a new workweek comes a new system of pay days

which provides for 26 a year instead of 24 as under the old plan. In Agriculture, pay day is every second Thursday. Amounts on the checks may be smaller, but there are two extra checks a year. Overtime work under the act is paid for by true time and one-half rates for salaries up to \$2,980, and, according to a table of rates provided for in the act, for those receiving more than \$2,980.

Waiting periods for within-grade promotions decrease from 18 and 30 months to 12 and 18 months, effective the beginning of each annual quarter if other conditions are met. An employee with a "good" or better than "good" efficiency rating may now be advanced to the top of the grade instead of the middle as under the old plan. Additional within-grade promotions are authorized for superior accomplishments (formerly called meritorious service).

Legislators did not overlook those who work nights and holidays. Night workers receive a 10-percent differential for the hours between 6 p. m. and 6 a. m. After the war, when holidays are no longer considered regular workdays, anyone working on a holiday will receive an extra half day's pay.

Good at figures

MEN BOAST rather smugly, that women are simply "no good at figures." Lately, however, masculine pride has been more than a little piqued by evidence to the contrary. One of the women who has helped to disprove this thesis is Caroline G. Gries, who retired from the Office of Foreign Agricultural Relations July 1, after 28 years of service.

Ever since 1917, when Miss Gries started to work for our Bureau of Markets, she had been connected with foreign-trade statistical work. She got as much kick out of whipping up tables for converting foreign weights and measures into United States units as most women get out of baking a chocolate cake!

One of her most important assignments was the preparation of a series of historical commodity and livestock studies covering United States trade from 1790 to 1935. One of the comprehensive jobs of its type, and probably the first, the task was a tough one for anyone, as it called for location of records which had either been lost or had strayed to parts unknown. She has seen her work grow until it is now handled in separate offices—one for export and one for import figures.

Unlike many who work with figures, Miss Gries always remained human. Her office did not exude that arid odor sometimes associated with calculating machines and statistical tables. You were immediately attracted by a pleasant smile. She got pleasure out of work.

Born in Ohio's china center of Tiffin, she later graduated from Heidelberg College, where she "escaped being a minister's wife" and studied at Chicago and Johns Hopkins Universities. Following a short teaching career in Ohio and Puerto Rico, she settled down to work with the Census Bureau and later with the Children's Bureau.

Miss Gries loves to travel and hopes to coax enough gasoline out of OPA to extend her sorties beyond Rock Creek Park. Where? Well, she mentions Mexico and the West—and with that gleam of wanderlust common to all lovers of the "open road" she speaks of even more far-away places.—HAROLD F. HETRICK, FAR.

Project completed

IN USDA for July 10, 1944, there was a story about the Eastern Regional Research Laboratory outside Philadelphia. It was then being found there that discarded leaves and other vegetable wastes, which are neither canned nor eaten, often contained better and more protein, carotene, and riboflavin than the parts of the same vegetables used for food. The Laboratory pursued this finding intensively and the project may now be said to have been completed.

Preliminary investigation, carried on cooperatively with the Delaware Agricultural Experiment Station, disclosed that certain dried vegetable wastes made excellent poultry feed. Other tests proved that they made superior animal feedstuffs, and carotene concentrates could be prepared from them. Broccoli leaf meal proved superior to alfalfa leaf wastes, and other standard commercial leaf meals, in broiler rations.

Next a survey was undertaken of the availability of the wastes in terms of quantity, kinds, location, and season. Then, to complete the project, work was undertaken on engineering factors involved in processing the wastes on a commercial scale. A technique for producing a high-quality leaf meal is given by David A. Colker and Roderick K. Eskew in a mimeographed circular entitled "Processing Vegetable Wastes for High-Protein, High-Vitamin Leaf Meals."

Therein the equipment required is discussed and outlined in drawings. There

is a complete exposition of the operating procedure. Yields and analyses of the product and the entire cost of processing also are detailed. Here we have a fine example of a project carried through efficiently from the original research findings to its conclusion. It is typical of the manner in which the big regional laboratories of the Bureau of Agricultural and Industrial Chemistry always work.

Journal of research

THE Journal of Agricultural Research, published by the USDA and edited in the Division of Publications, Office of Information, is unquestionably one of the outstanding scientific journals in the world and probably the leader in its field. It can also undoubtedly be proved, as will be shown later in USDA, that the final practical results flowing from a half dozen of the articles which have appeared in the JAR would pay the entire cost of its publication from October 1913, when the first issue appeared.

B. T. Galloway, earlier Chief of the Bureau of Plant Industry and later Dean of Agriculture at Cornell and Assistant Secretary of Agriculture, submitted a memorandum to Secretary David F. Houston outlining a plan for closer cooperation between the USDA, the land-grant colleges, and the experiment stations. Various conferences ensued, at one of which the possibility of publishing a Department scientific journal was discussed.

Dr. Karl F. Kellerman, of BPI, Dr. Carl L. Alsberg, of the Bureau of Chemistry, and C. F. Marvin, of the Weather Bureau, were asked by Galloway to serve as a committee further to consider this proposition. Memorandum No. 34 Regarding Publications of the Department of Agriculture, July 1, 1913, summarized their recommendations that a journal of research be established. Provision was made for appointment of two editorial committees, one composed of USDA and the other of land-grant college and experiment-station personnel.

Dr. Kellerman became chairman of the Editorial Committee, with Dr. Edwin F. Allen, Office of Experiment Stations, and Dr. Charles M. Marlatt, Bureau of Entomology, as the other members. Legal authority was clarified, then the proposal was made that the publication be called the Journal of Research of the U. S. Department of Agriculture and the State Agricultural Experiment Stations. The Solicitor held out for simple Journal of Research. When the first issue ap-

peared, the title was *Journal of Agricultural Research*.

Falba L. Johnson, Division of Publications, has given to the JAR years of devoted service—we shall not say just how many, of course! In doing so, she has informed herself widely about the various agricultural sciences, which makes of her a most capable technical and all-round general editor of manuscripts presented for publication. USDA hopes later to present certain material about outstanding articles which have appeared in this equally outstanding journal, drawn from illuminating notes prepared by Miss Johnson. Dr. M. C. Merrill, Chief of the Division of Publications, has over-all supervision of the editing of the JAR.

Four scientists

THE Bureau of Plant Industry, Soils, and Agricultural Engineering recently lost four scientists by retirement all at once. One was Harry T. Edwards, international authority on fibers and a leader in the development of modern agriculture in the Philippine Islands. He was highly commended by the Chief of his Bureau for his success in helping meet the wartime fiber needs of the armed services. This became possible through his efforts in promoting the growth of abaca in Panama, which made possible rapid expansion in production to 20 million pounds of the fiber, the only wartime source of this invaluable material for marine cordage.

Dr. Clyde E. Leighty, who headed the Division of Dry Land Agriculture in this Bureau for the past 15 years, John S. Cole, long assistant chief of the division, and Stephen H. Hastings, for many years assistant head of the former Division of Irrigation Agriculture in PISAE, also retired. Leighty had done much to promote the use of sound practices leading to a more enduring agriculture in semi-arid regions. Earlier he did valuable work on the export shipping of grain, and on wheat and rye hybrids.

Cole's work had lasted from 1902, when he began service under Mark Carleton. He had much to do with adapting durum wheat to regions where it is now widely grown; he also discovered durum and emmer wheats which proved useful in breeding bread wheats resistant to black stem-rust. Hastings carried on research in the field of irrigation agriculture, supervising such investigations at six Government field stations devoted to this work. In 1944 he went to Mexico on leave

to supervise the planting, for another U.S. agency, of 50,000 acres of irrigated land to the rubber-producing plant, *Cryptostegia*.

Lady research chemist

WE PRESENT Majel M. MacMasters, research chemist and only feminine section head in a predominantly masculine research Bureau, Agricultural and Industrial Chemistry. Dr. MacMasters, who received her Ph.D. from Massachusetts State College in 1934, came to the Department as an associate chemist, in September 1940, at the Northern Regional Research Laboratory, Peoria, Ill. In December 1944, only about 4 years later, she was placed in charge of the Starch Granule Section of the lab.

G. E. Hilbert, head of the Starch and Dextrose Division and Dr. MacMasters' supervisor, says she "is an excellent research chemist and has administrative ability." At present she's delving into these lines of research: Development of starch sponges for possible use by the Army and Navy as absorbable dressings for wounds and possible food uses of "sponges" as suggested by the Quartermaster Corps; processing of grains for production of starch; determination of starch-granule properties under various pasting conditions; fractionation of starch to its components; and application of this information to new uses for starch. "Starch sponge" may be used for several purposes in food products. In its dry state, the ground or shredded sponge, because of its crispness, imparts crunchiness to confections or cracker-like wafers. Shredded, dry sponge also has properties similar to shredded coconut or chopped nut meats. When finely ground, the material shows promise as a stabilizer in chocolate coatings and icings.

Perhaps Dr. MacMasters' most valuable contribution has been the determination of the effect of sulfurous acid in the steeping of corn. Though the corn wet-milling industry had been using sulfur dioxide for 50 years, they didn't have the foggiest idea of the action of sulfurous acid in the process. Dr. MacMasters and her colleague, Mary J. Cox, developed new techniques of microphotographing for studying the goings-on inside the corn kernel, and thereby were able to learn the effect of sulfur dioxide on the kernel. This research was reported in *Cereal Chemistry* for November 1944. Dr. MacMasters' work has also been reported in other scientific publications.

Despite this somewhat formidable line of research, Dr. MacMasters is not a "bluestocking." She has a good sense of humor and is an enthusiastic victory gardener. She and her mother have a summer place called Shivering Timbers, near Rutland, Vt., where she hopes to spend more vacations after the war.

Safety first

THE USDA Safety Council has again brought to its members and guests a bang-up program to make both rural and urban folks safety conscious. The occasion was a recent meeting in the Jefferson Auditorium. Chief in importance was the speaker, Sen. Arthur Capper of Kansas. Senator Capper was introduced by Grover Hill, who remarked that the Senator had laid the cornerstone of our Department Administration Building. To those of us who listened to the Senator came the thought that someone with real foresight had chosen Arthur Capper for that honor. He has the interest of the farmer at heart; he feels the only failure chargeable to farmers is the toll which accidents take yearly.

Something must be done to prevent this toll from mounting—many things can be done—and the Senator told us that we in the Department are the folk to do it! We can do it in our contacts with farm families, where we can find out first what the hazards are. We can do it by safety education and training and by working with farm organizations, 4-H Clubs, and other groups. The inclusion of farm-safety engineering courses in our colleges would, the Senator said, start the young farm people off "on the right foot."

In direct support of the Senator's expressed belief in the Safety Council's ability to aid the farm folk, a film strip was presented which it recently prepared in cooperation with the National Safety Council. The strip can be used as a discussion guide, as a regular film strip at meetings of farm families, and as the basis for a "quiz" on farm safety. The program also included a special Pete Smith "safety sleuth" film.

John H. Wetzel, of Soil Conservation Service and council chairman, in opening the meeting, recounted some of the council's past accomplishments. He dwelt lightly on its troubles, which must have been many if arousing interest in a new idea ran true to form. He told us of the problems attacked and of the resultant success; of the plans made by the council each year for National Farm

Safety Week and National Fire Prevention Week; of the safety courses being integrated into the training of new employees; of the council's work in the safe employment of handicapped workers; and of its many other activities.

Keep your eyes on the Safety Council, folk. It is going places, and we are going to be safe whether we like it or not!—A. SHEILA DISSETTE, FSA.

Jap balloon bombs

THE JAPANESE seem fully aware of the damage that forest fires can do to our war effort, even if some United States citizens aren't.

You may recall that the Japs tried to fire the forests in southern Oregon in 1942 (see *USDA*, October 5, 1942) with incendiary bombs dropped from an airplane (presumably launched from a submarine off the west coast). Quick action by Forest Service lookouts and smoke-chasers thwarted that attempt.

Recently the Army and FS reported the Japs' fantastic effort to bomb the United States from a distance of 5,000 miles with fire balloons. The pilotless balloons, which travel with the stratospheric air currents, carry incendiary bombs and devices for their automatic release. So far they have started no fires and caused no property damage, but a woman and five children were killed last May when they tampered with an unexploded bomb discovered while out on a picnic.

This gives point to FS's warning to Department field workers and others to leave strictly alone any bomb or balloon they may run across in woods or fields. The only balloons found on the ground are defective ones which failed to explode. They should be reported at once to the nearest FS, police, or Army office.

FS and the Army are working closely together to combat any further balloon attacks the Japs may take a notion to try. The FS fire-fighting parachute corps, with Army additions, has been increased to 400 this year—more than three times the number of "smoke-jumpers" used last year.

Meanwhile, says Chief Forester Lyle Watts, FS is less worried about this enemy balloon attack than it is about the matches and smokes and picnic fires of American citizens. Our own people cause some 180,000 forest fires each year, mostly through carelessness, indifference, or ignorance. A forest fire—started by a carelessly tossed match, by an abandoned camp fire, or by burning to get rid of brush or weeds

without adequate safeguard—may be just as damaging as any the Japs could start with their long-distance balloons.—C. E. RANDALL, FS.

Brief but important

Marvin Jones thanks farmers: On the day that WFA, at its own request, was merged with USDA under an Executive order, the retiring War Food Administrator, Marvin Jones, gave special thanks to American farmers for the greatest food-production effort in our history. He said, among other things: "The farmers and ranchmen of America have responded to every call that we have made. Their production record has been magnificent. I shall always be grateful to them, and the Nation owes them a debt of gratitude."

Davis to head Forestry School: Kenneth P. Davis, Chief of the Forest Service's Division of Forest Management Research since 1943, will become Dean of the Montana School of Forestry September 1. Dr. Davis entered the FS in 1928 as district ranger on the Deer Creek and Park district of the Absaroka National Forest, Mont. In 1932 he transferred to the Northern Rocky Mountain Forest and Range Experiment Station, to engage in silvicultural research until coming to Washington in 1940.

Died in harness: Lawrence L. Johnson, since 1935 Texas 4-H Club boy's agent, a 52-year-old native of Ohio, died in a Bryan, Tex., hospital June 11. In May he led 2 boys from each of the 12 extension districts into Mexico, a realization of his long-time dream about fostering better relations between that country and ours. Despite ill health, he worked untiringly on his plan, made the trip, returned June 7, and went to the hospital a few days later. He truly died in service. He was a graduate of Texas A & M and had been county agent in Bosque and Cooke Counties earlier in life.

Recommended reading: Miscellaneous Publication 562, *What Peace Can Mean to American Farmers—Post-War Agriculture and Employment*, an informative and stimulating Department publication with a foreword by former Secretary Wickard.

Information: Various field workers in the South who were seen recently—most of them scientists—believe wholeheartedly in information. They feel that our research stations must sell themselves to their clientele, and that State research stations usually do a better job of this because they have better equipment—often a nice conference room tastefully supplied with attractive publications. Some of the scientists think there should be professional writers whose function would be to turn their data into both popular and technical publications. They are all for traveling writer-editors because, they say, scientists can rarely write even passably well, and would prefer not to be bothered with writing anyway. Some said they had masses of useful data that could not be put to work because they lacked time and ability to turn them into publications.

Award: The Rosenwald Fellowship recently awarded J. Lewis Henderson, Farm Security Administration information specialist for Region VI—Arkansas, Louisiana, and Mississippi—will permit him to study for the book he plans to write on American agriculture during wartime.

Have you returned the questionnaire to the editor in the July 9 issue of *USDA*?

Thomas Jefferson Memorial Auditorium: One recommendation of the National Agricultural Jefferson Committee, created in response to a joint resolution of Congress approved December 3, 1943, was that our Department Auditorium be so named. On May 29, 1945, this recommendation was carried out with appropriate dedicatory ceremonies. A new picture of Jefferson, which hangs now in the auditorium, and the dedicatory plaque in the foyer, call attention to this.

Veteran preference: Veterans have preference over nearly all other prospective purchasers of new farm machinery through WFO No. 135, effective June 25. County Agricultural Conservation Committees issue veterans' preference certificates. Dealers must honor these, notwithstanding prior commitments or contracts for sale, other than those carrying WPB ratings. The Director of Materials and Facilities administers the order, delegating certain powers to the Agricultural Adjustment Agency.

USDA Documents: Our mimeographs concerning the structure, functions, and top officials of USDA will probably not be issued in revised form for some weeks yet; copies dated in June 1945 are still available. Document No. 6, *Important Recent Achievements of Department of Agriculture Scientists*, will be available in a new revision sometime soon. The following mimeographs have been brought up to date as of July 1945: No. 3, *Abridged Chronology of Agriculture's Part in the War*; No. 4, *Condensed History of the U. S. Department of Agriculture*; and No. 9, *Biographies of Persons in Charge of Federal Agricultural Work, 1936 to Date* (including Secretary Anderson). No. 8, *Abridged List of Federal Laws Applicable to Agriculture*, is being brought up to date in the Office of the Solicitor. Available in limited quantities. Write or phone the editors of *USDA*.

August 6, 1945

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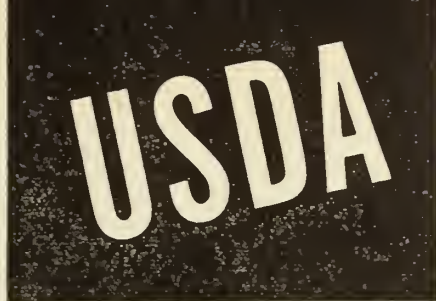
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FOR AUGUST 20, 1945

Conference in Caracas

DEPARTMENT officials, noted for their interest in farming in other countries, were United States delegates to the Third Inter-American Conference of Agriculture, in Caracas, Venezuela, in July. Others, also known for their international agricultural perspective, attended the meeting as advisers or delegation aides.

The purpose of the conference was to seek solution, through cooperation of all American republics, of the numerous pressing postwar problems confronting farmers of the Western Hemisphere, and it is felt much was accomplished toward achievement of this objective. Previous conferences which were highly constructive had been held in Washington in 1930 and in Mexico City in 1942.

USDA officials among the delegates to the meeting included Under Secretary J. B. Hutson, Chairman of the United States delegation; Leslie A. Wheeler, Director, Office of Foreign Agricultural Relations; Hugh H. Bennett, Chief, Soil Conservation Service; Philip V. Cardon, Administrator, Agricultural Research Administration; Howard R. Tolley, Chief, Bureau Agricultural Economics; and M. L. Wilson, Director of Extension.

Designated as advisers were Paul L. Koenig, Head, Division of Agricultural Statistics, BAE; Edward I. Kotok, Assistant Chief, Forest Service; Hugh C. McPhee, Assistant Chief, Bureau of Animal Industry; Ross E. Moore, Chief, Technical Collaborations Branch, FAR; Hazel K. Stiebeling, Chief, Bureau of Human Nutrition and Home Economics; and Arthur T. Upson, Director of the Forest Service's tropical unit in Puerto Rico.

John J. Haggerty, in charge of the FAR Central and South American Section's regional investigations branch, served as a conference secretary, and Philip L. Green, FAR, was designated assistant to Delegation Chairman Hutson.

Work, paper, money savers: Julia Connor, Chief, General Files Section, Farm Credit Administration, has received a salary increase for especially meritorious service. Besides her outstanding ability as a supervisor, Miss Connor has streamlined the FCA files, reducing the amount of detail work and stopping the writing, classifying, and filing of some 225,000 unnecessary transmittal letters annually. This amounts to great savings of work in original writing of the letters and in classifying and filing them in FCA, of costs for postage, and of paper. By the way, the USDA editors get a good many transmittal letters, some with 1 or 2 lines of typing on a full-length sheet of expensive-looking paper. Other bureaus might well emulate the excellent example of FCA's Miss Connor.

gives a more detailed account of how to prune apples trees—step by step in logical sequence. Good illustrations and charts that tie in well with the text help to tell the story; also help the reader understand the more technical terms.

Oversimplification

In the popular bulletin farmers must wade through 23 pages—7 more than the specialist's—to find out how to prune apple trees. They must dig the facts out for themselves from a maze of conversation, parts of which have little or no bearing on the subject. The writer has oversimplified parts of the publication by talking down to farm readers with ungrammatical colloquialisms. Important points are buried in rambling wordiness; not tied together and summarized in 1-2-3 order for the reader to carry away.

There is danger in making the reader do all the digging, especially busy readers like farmers who often take things on the run. "Too good a story or too good fiction is not good for informational or teaching material because the reader does not always get the point," said James Clarke, consultant on popular writing at the Workshop. Many of the Michigan farmers found the popular bulletin more entertaining than the specialist's; they also felt it might induce more farmers to try pruning their apple trees.

The Michigan survey shows the wisdom of having two kinds of publications on each subject; simple promotional folders like the AWI and AIS series of USDA that supplement the straight informational farmers' bulletins.—AMY GRONNA COWING, EXT.

Hired farm workers: Hired Farm Workers in the United States, a mimeographed statement from Extension Service, merits your attention. Farm labor problems and recommendations for their solution are the subjects. The report was made by a committee from the Land-Grant Colleges at the request of Ext. Ask Ext. for 1051 (7-45).

Bulletin experiment

A MICHIGAN specialist had written an apple-pruning bulletin. Then a professional writer had written up the same material. Both bulletins were made available to farmers, who nearly always picked the specialist's version by preference. Why? Could specialists write better than writers?—April 16 USDA.

There's dynamite in those questions; but we venture an answer. We've been studying Michigan's two apple-pruning bulletins in our Extension Readability Unit. We measured the reading difficulty of both publications by a readability formula. We discussed them with Joseph G. Duncan, Michigan bulletin editor, who helped develop this bulletin experiment. Later we watched top-flight consultants deftly take them apart at the recent Publications Workshop held for extension workers at Columbia University.

Tested by the same readability yardstick, the specialist's version checked out more difficult reading than the writer's; it averaged high-school reading level—on a par with Harper's Magazine. Very cleverly, the popular writer had whittled down the specialist's version to the sixth-grade level of True Story Magazine—two grades below the school level of the average Michigan farmer.

Despite the simpler presentation of the writer, the majority of the Michigan farmers polled said they understood the specialist's explanation of the pruning method better than the writer's. Why?

The specialist's version is shorter, better organized, and more to the point than the writer's. The farmers wanted to know how to prune apple trees. The specialist tells them; then he tells them again; then he tells them what he told them. He does this by giving the information in two summaries, a preview at the beginning preparing the reader for what's to come, and a review at the end, in question-and-answer form; questions that the reader might ask himself with the answers right there before him. Between the two summaries the specialist

Scientific writing

IN A FIELD of endeavor where the printed word is usually the best indication of a man's accomplishments, it is surprising to find so few scientists who can express themselves on paper with ease and lucidity. Editors are continually confronted with lifeless and artless manuscripts on subjects that stimulate their curiosity and excite their imagination.

To write well is not easy, especially in the realm of science. The great French novelist, Gustave Flaubert, once remarked, "It is easier to become a millionaire and live in Venetian palaces than to write a page of beautiful prose." Of course, Flaubert, the master of French prose, set his standards higher than, say, the editors of the Department. Yet there is a lot of truth in his wisecrack.

The organization and assembly of a myriad of "little" facts, the patient analysis of these results, the drawing of sound conclusions, the very use of the apparatus of scholarship—all this requires a special skill that is apart from, but supplementary to, that of successfully conducting a scientific experiment. Unfortunately, the American system of education permits a man to go through college—yes, even take a Ph.D. degree—without requiring him to develop any great facility in writing.

A serious failing of American scientists, judging from their manuscripts in the raw, is inability to organize their material effectively. Some construct their tables and charts and set out to write a report without an outline or a clear conception of what they want to say. In other words, they improvise. A man who would not think of beginning an experiment until he has chosen all his apparatus and worked out his methodology assumes that to write his report, hardly more is required than a good supply of sharpened pencils and pads of papers. The classics of scientific literature were not written in this jaunty manner.

No short cut

Our favorite model of scientific prose is Darwin's *The Origin of Species*. Granted that Darwin had a natural talent for writing, the patience and thoroughness with which his facts were marshalled ought to be emulated by every scientist. If you examine well-written scientific works such as Darwin's, Jeans', or Eddington's, you will see that every sentence has its proper place and adds something to the structure of the work.

When you finish a chapter, you have a clear-cut idea of its contents and are eager to go on to the next.

The essential qualities of good scientific writing are only achieved by taking pains, by going over the manuscript again and again to remove excess sentences and words, find more felicitous expressions, and weaving the ideas constantly into a more coherent and therefore more effective order.

If more scientific writers aimed at these standards, editors would cease to be the grumpy creatures they so often become. They would smile more frequently and be kinder to their fellows. And many scientists, now hidden in obscurity, would find that the world is appreciative of their endeavors.—ANTHONY NETBOY, FS.

What Russia got

MEATS, SUGAR, fats, and oils have been the most important foods shipped to Soviet Russia since December 1, 1941, says the June issue of the *National Food Situation*. All told, about 8½ billion pounds of agricultural commodities have gone to the Russians. Some 2.2 billion pounds, or 26 percent, of the shipments by weight were grains and cereal products, 18 percent canned meat, 16 sugar, 15 animal fats and cured meats, 12 vegetable oils. Practically all the foods shipped were used for the Red Army or for clinical treatments.

Shipments were made under four protocols or agreements between the two countries. Under the first three, larger quantities of cereals were shipped than of any other group of commodities. In the past year, meats and fats and oils have been most important. During the first 11 months of the fiscal year 1944-45, shipments were reduced to 2,461 million pounds from 3,517 million pounds shipped in the 12-month period July 1943 to June 1944. Of this total, about 1,119 million pounds have been shipped since January 1, 1945.

About two-thirds of the noncivilian takings of vegetable oils and about one-sixth that of meat, most of it cheaper cuts of pork, went to meet Russian war needs in 1944. Also, some 654 million pounds of the more than 2.5 billion pounds of sugar devoted to war needs were sent to Russia. Other items sent last year included about 291 million pounds of lard and 419 million pounds of eggs, and 80 million pounds of butter, or 20 percent of the total war butter takings from United States supplies.

The food situation in Russia in 1944-45 was somewhat improved over the pre-

vious two years of very tight food supplies. Further improvement is expected following the 1945 harvest.—CATHERINE CARMODY, BAE.

S. R. V. B. L.

LET THE above letters stand for the Southeastern Regional Vegetable Breeding Laboratory, at Charleston, S. C., of which B. L. Wade, a young-looking chap of broad and varied background and experience, is director. The prime objective of this Bankhead-Jones Laboratory is to develop basic new facts, principles, and methods that will speed the breeding of new vegetable varieties peculiarly adapted to the South and also tailored to meet the requirements of different uses and types of food processing.

For instance, snap beans have been bred that yield 7 tons per acre in some parts of the South, as compared with 5 tons for ordinary commercial strains on the same test plots. The beans also are freer from fiber and more palatable than those ordinarily grown; they have greater resistance to certain common diseases and to insects, and they process admirably. They have been tailored to meet specific conditions.

The station has a pleasant building, modern laboratories, greenhouses, equipment, about 10 professional and subprofessional workers, and some 20 laborers. Some 200 acres of good truck-crop land are attached. Several of the workers have homes on the station, owned and rented to them by the Department. Clemson has a truck substation nearby which works in close cooperation.

The scientists of the laboratory have partially worked out the genetics of the ascorbic acid (vitamin C) content of snap beans. Strains have been developed which behave consistently for higher and lower vitamin C content, and possibly the first paper that ever appeared on this subject came from the laboratory.

Watermelons may contain from 6 to 10 percent of sugar and 10 to 13 percent of total solids. A heavy rain may lower the sugar content only 1 percent, yet affect the flavor of the melon perceptibly. Watermelons are being bred for consistently good sugar content and flavor, resistance to wilt and anthracnose, most salable red-flesh color, and preferred black-colored seed. Set the specifications and the laboratory will almost certainly develop ways to meet them.

Cabbage is being bred for cold tolerance and to contain at least twice as

much vitamin C as ordinary commercial varieties. Sweet corn is being bred with resistance to the earworm, strains having been discovered that earworms do not relish—just why, being as yet unknown. Peas are being bred for drought resistance and general hardiness; tomatoes for resistance to wilt and defoliation diseases and increased vitamin A content. Carrots and lima beans are to be bred with improved vitamin content and weather resistance.

We had a pleasant luncheon with the Charleston USDA folk at the laboratory and spoke to them later in the library there. We stood at laboratory tables for the luncheon, which was excellent. Our visit was pleasant, educational, and stimulating.

FCA's problem

AS I. W. DUGGAN, Governor of the Farm Credit Administration, sees it, FCA is faced with a major problem. The rapidly increasing price of farm lands calls for immediate attention.

He does not hesitate to say that we are on the brink of a national farm-land disaster unless something is done to curb rising prices of farms and ranches. In support of his statement, the national level of land values on July 1, 1945, was 57 percent higher than the 1935-39 average. Approximately 1 farm in every 20 in the country was sold in the year ended March 1, 1945. This pace exceeded the peak year of the World War I land boom, says Duggan, although it was a little below the record rate in 1943-44.

The lesson learned in the World War I land boom seems to have been forgotten. Land prices are rising at about the same rate in the present conflict as they did in the World War I period. The time during which farmers will continue to receive war income is getting shorter: If land prices continue to rise, those who buy farms in the future may find their equities completely wiped out when prices of farm commodities and farm land level out to normal.

Some suggestions made to curtail these rising prices are: A heavy tax on profits from resales of farms acquired and sold after a short period of ownership; regulation of the amount of credit that could be secured (what land banks have been doing all along) by basing loans on normal value; and ceilings on values, established on the basis of the first sale of the farm after the control becomes effective.

USDA: August 20, 1945

Dried eggs

WHEN YOU mention dried eggs to a serviceman, you are likely to get a Bronx cheer as your reward. Thereafter he will give you an exposition of their noxious fragrance and dubious palatability, which seems to be highly prejudicial. Yet probably he's right—the dried eggs he got were perhaps a pretty poor substitute for food.

However, that does not condemn dried eggs, the wartime ugly ducklings which may blossom forth as post-war swans. For USDA scientists have proved that if good-quality, spray-dried whole eggs are stored at cool temperatures, they compare favorably with fresh eggs in flavor and in cooking quality, even after as much as a year.

Under unfavorable storage conditions, the quality of dried eggs descends rapidly, but stored at temperatures below 60° F., things are different. When such year-old eggs are scrambled, the result is tender and creamy. Cakes, baked custards, popovers, and mayonnaise can be made from such eggs, which compare favorably with similar products made from fresh eggs.

Store dried eggs one month at 86° F. or above, and they produce dry, grainy, brownish scrambled eggs and soft, watery custards. Their off-flavors even show up in cake at times. But the Bureau of Human Nutrition and Home Economics is our authority for the statement that dried eggs, if properly handled and stored, have a bright future as a supplement to fresh.

Share Oberly award

EUNICE ROCKWOOD OBERLY was librarian of the Bureau of Plant Industry at the time of her sudden death in 1921. Contributions for flowers for the funeral reached such a total that her friends decided to set aside a considerable portion of the amount as the basis of a lasting memorial. Further gifts from her friends both in and outside the Department increased the fund to \$1,050, which was established under the American Library Association. The income is awarded biennially for the best agricultural or natural science bibliography, a field in which Miss Oberly was deeply interested and to which she made important contributions.

S. F. Blake, senior botanist, Bureau of Plant Industry, Soils, and Agricultural Engineering, and Alice C. Atwood, collaborator (formerly botanical bibliographer,

Department Library), will share the tenth award (which was made for four years instead of two) with J. C. Cunningham, of Iowa Agricultural Experiment Station. The Blake-Atwood entry was MP 401, Geographical Guide to Floras of the World, Part 1, 1942. A review of this publication in *Nature* (London) 152: 202, August 21, 1943, states: "No list of the scope of this one has previously been published. While it enumerates more than 3,000 titles, its aim is usefulness and not bibliographical completeness. . . . This is an invaluable reference work." Latin American reviews also have noted the usefulness of this publication to students of botany everywhere.—JOHN A. FERRALL, PISAE.

FCA's Duggan

IF YOU meet a tall, broad-shouldered, friendly person walking rapidly and totting a bulging brief case, but who looks like neither a researcher nor a teacher, the chances are he is I. W. Duggan, Governor of the Farm Credit Administration—"Dug" to his friends, and they are legion, North, South, East, and West.

Nobody but Dug ever gets a peek into this brief case, but other people wouldn't be interested if they did. It's packed full of large 6 by 8 cards crammed full of figures. You wouldn't give 2 cents for the lot; but they are Dug's mental tickler or stimulator. His friends say he merely carries them for moral support; he knows them by heart as those who listen to him talk can testify. And when he talks, the figures take on life—they help tremendously in proving Dug's points. A brand new figure to him is nearly as much pleasure as would be a prewar cigar.

It isn't difficult to spot Dug's early habitat. He comes from the soft-speaking South—Georgia and South Carolina—but his rapid-fire talk sort of belies his origin, except when he pauses to tell a southern story, and that's often.

Dug got his early academic training at South Carolina's Clemson College, graduating in 1918, just prior to his service in World War I. In 1932 Ohio State University awarded him an M. S. degree in rural economics; then in 1937 Clemson conferred the honorary degree of D.Sc. in recognition of his outstanding work in agriculture.

For several years, Dug taught vocational agriculture; then became a county agricultural agent. He was professor of agricultural education at Clemson and at Mississippi State College. For about 5 years, before coming to FCA, he was

director of the Southern Division of the Agricultural Adjustment Administration. That's when he began packing the brief case full of statistics to back up his statements. Then they concerned production in the South and the need and know-how for attaining agricultural wartime goals. Now they deal with farm credit as extended by 500 production-credit associations and 2,000 national farm-loan associations, the banks for co-operatives, and other units of FCA. They also deal with the many wartime and post-war problems inherent in a 2 billion dollar credit business.

"Co-op credit organizations," says Dug, "have not only served their members well, but the test of time shows they fit the farm business."

Progress report

PUBLICATION of Farm Security Administration's 16-page Handbook on Health for Farm Families was announced in *USDA* for December 25, 1944. The first edition—330,000 copies—was distributed to all FSA families and in addition was well publicized by press and radio. A small sample of post cards and letters which came in response, requesting copies of the handbook, has been examined in order to get at the type of reaction prompted by this publication. Letters come in as follows:

In the Birmingham Age Herald I see where medical books are being distributed to certain farmers. This is a farm home. While this family does not come under the FSA, there are three women in the household—all past 60. This is the family. If permissible we would like a book . . . I have several rural friends where doctors are not available at the present time that I would like to send this pamphlet to . . . We are finding it very hard to get a doctor when we call one and at times can't get any at all . . . As it is rather difficult at times to get a doctor for minor ills, it seems that the Government is doing a great help by sending out such a book.

In general, the reaction of information specialists, like that of the lay public, was very favorable. One southern official offered his opinion that "the handbook met with more favorable reaction than any one piece of health literature that has been distributed generally in recent years."

The usually interested response accorded the handbook made it necessary to publish a second edition of 75,000 copies. Now this second edition also has been exhausted. It seems clear that the more than 400,000 copies already distributed do not yet measure the size of the demand for this modest little health aid.

What does this all add up to? It is just one more straw in the wind showing the keen and widespread interest of rural Americans in ways of better meeting their health needs. It means that one of our most challenging post-war questions is: Will the United States have the courage, tenacity, and ability to help assure adequate health services for all rural people.—EDGAR A. SCHULER, BAE.

Story of a match

EFFICIENCY EXPERTS often point out the importance of giving an employee pride in his job. One way of developing this urge for better work is to increase the worker's knowledge of what is done with the product of his labor. Another way is to help him realize the value or function of his job in relation to that of others and in the larger relationships bearing on service to the general public.

This was brought to my attention forcibly the other day by the report of a USDA employee who directs the inspection of New England white-pine shipments to prevent spread of gypsy moth. His job is to see that thousands of board feet of "match stock" are inspected and certified as free from gypsy-moth egg clusters, before releasing for shipment to Canada. To many, this might seem to be a routine and tiresome task or just a meal ticket. Not to him.

His report told about how the white pine that he and his crew inspect goes to Canadian factories where it is cut into blocks about 4 inches square. The blocks are then processed into match sticks with their ends still attached to the small blocks. Next, the processed blocks are packed and shipped via boat to England or India, where they are dipped to form the head of the match. The blocks are then reshipped to Canada and the United States, where they are cut and boxed for trade.

"If we inspectors didn't do this job right," he said, "Canada wouldn't get this white pine, our timber owners would lose money, India or England would lose some trade balances, and matches might not be so plentiful or so cheap."

What is your job?

This man knows his place in the scheme of things. Not all USDA jobs touch products which take romantic trips to India and around the world and have such concrete ends. How many employees know what would happen if their type of job were abolished? Aside from personal consequences, what would be the final effect on Government opera-

tions? How would it affect your agency, how would it affect the Department, how would the ending of it affect the Government and our ultimate employers, the people?

How many USDA employees know the functions of their own agency, its relations to other agencies, and the functions of the Department, its relations to other Departments and agencies, and the ultimate effect on the people of this country? It may be that, in addition to orientation conferences, every new employee would benefit from reading material describing all agencies of the Department in some detail, and more generally its relation to the other Government agencies. Why not a small booklet about the size and nature of *Shall I Be a Farmer?* produced by Department specialists and writers for the orientation of war veterans to the vocation of farming?

Why not a booklet for employee orientation to the Department and to the Government, simply entitled "What Is Your Job?" Necessarily such a booklet would not be concerned with descriptions for specific jobs but with the general relationships of different types of jobs in various Bureaus, and the relationships of the bureaus and the Department, and of the Department to the rest of the Government in terms of public services.—WILLIAM A. D. MILLSON.

Production guidepost

EVERY SMART manufacturer plans his production. Since the war began the same thing has been true of agriculture. Production goals have guided farmers, collectively and individually, to produce food, fiber, and oils to meet all essential—military, civilian, and lend-lease—needs.

Production goals are not new. They have long been part of Agriculture's conservation program. When a national emergency arose, the goals for 1942 were extended to all principal crop and livestock commodities. The wartime production-goals program has been eminently successful, largely because the American farmers' productive capacity exceeded expectations.

Our farmers have increased their production one-third since the war began, even though the total acreage planted was increased only 1 or 2 percent. More important, they have shifted from less-needed to most-needed crops and livestock.

Production goals are not set at haphazard. Goals-setting is a year-round

process. Beginning in late spring, State committees are asked to send in reports on the maximum capacity of their States for the ensuing year. USDA commodity committees in Washington balance this information against requirements and formulate tentative goals.

A goals review committee, made up of representatives of USDA agencies, examines each goal, considering all relevant factors—past production records, weather, prospective supplies of labor, machinery, fertilizer, marketing and transportation, and other farm facilities. Furthermore, goals set on all commodities must harmonize with one another, e. g., feed goals must be adjusted to livestock goals.

Break-downs

When USDA people reach their decisions, the national goals are broken down into suggested State goals which are discussed at State meetings attended by farmers and by both Federal and State officials. The final say is with the State people who may increase or decrease a goal. The State Agricultural Adjustment Agency committeemen and field men, assisted by Extension and other USDA agencies, hold district and county meetings and explain the goals again. State goals are broken down to county goals and patriotic appeals are made to farmers.

Next the hundred thousand AAA farmer-committeemen take to the road, carrying the goals story to each neighbor. Farmers voluntarily fill out individual goals sheets, listing their production intentions for the year, either at sign-up gatherings or when visited individually. The committeemen also aid farmers on commodity-loan, soil-building, processing, transportation, and storage problems. Various USDA agencies assist with soil conservation programs, price supports, incentive payments, and labor placements.

Farmers learn that long-run profit lies in growing needed crops. Goals are popular with them, for they know they are not wasting land, labor, and materials on crops that may prove superfluous. They can be justly proud of their wartime records. Guided by goals, they have responded voluntarily and patriotically to the wartime call for food. The goals program establishes a balanced production pattern.

It seems that goals could guide farmers in striking a balance between production and requirements when peace returns. They could point the way to ample meals for all United States families after the war. Farmers could more readily plan

to provide the food supplies we require for appetizing as well as nutritious meals, then than now. Maybe that is in the cards.

Bird lore

THE USDA June 11 note saying that "Roe McDanolds Has a Farm . . . is believed to be the first Department publication based on one farm and the farmer who operates it," reminded Howard Zahniser, Bureau of Plant Industry, Soils, and Agricultural Engineering, of something that happened while he was connected with the former Bureau of Biological Survey. In 1902 the Bureau published its Bulletin 17, *Birds of a Maryland Farm*, by Sylvester Judd.

Long after this, a visiting citizen came to the office of Edward A. Preble, in the Survey, one day after office hours, fortunately catching him still there. The visitor explained that he had bought a Maryland farm and wondered where he could get some information on the birds in his vicinity. Some one had told him the Biological Survey would be a good place to apply; so there he was. Mr. Preble showed him *Birds of a Maryland Farm*.

After the visitor glanced through it, he revealed that for once, at least, the Department had produced a publication exactly fitted to the reader. The man had unknowingly purchased the very farm on which the Department's bird study had been made a generation before his time!—JOHN A. FERRALL, PISAE.

Ask Uncle Sam

THEY ARE STILL asking Uncle Sam questions and still getting the right answers. When they ask the Department questions, a long tradition of service is involved. Way back in the days of Jeremiah M. Rusk, first Secretary by appointment, in 1889, about a hundred thousand letters of inquiry came into USDA annually. Long before that, many people had learned to regard our Department as an institution which provided sound, impartial, scientific answers to their questions.

The flood of questions continues, though, it now runs into the hundreds of thousands and even millions. That is why we have so many publications and processed documents. They answer questions in blanket form much more economically than personal letters could do. Many of those who write in do so in bursts of confidence, some of them giving

an exposition of hair-raising personal and family situations.

But below you will find a list of questions commonly asked—not a "top ten" or anything like that, yet typical. These happen to fall in the field of the Bureau of Human Nutrition and Home Economics, and the answers are in that Bureau's popular publications. How many answers do you know? How many answers would you like to know?

Questions and answers

- (1) How much milk does a child need each day?
- (2) Does breakfast orange juice lose vitamins if squeezed the night before?
- (3) How can I fix good main dishes with little or no meat?
- (4) Is sugar necessary in home-canned fruit?
- (5) Which foods are good sources of vitamin A?
- (6) What is the best way to store woolens?
- (7) Will vinegar or salt in washing water set colors?
- (8) Can I use a sewing machine for patching worn things?
- (9) How can finger-nail polish stain be removed?
- (10) How can I clean rubber goods?

Turn to page 7 for names of publications answering these questions. If you need any of this information, ask for publications in the Administration Building Patio, or write to the U. S. Department of Agriculture, Washington 25, D. C.

"Mr. Van"

THE Bureau of Entomology and Plant Quarantine suffered a loss with the retirement, on June 30, of Delos Lewis Van Dine, who had headed the Division of Fruit Insect Investigations since 1933. "Mr. Van," as he was called by his friends and associates, began his entomological career in Hawaii in 1902.

After 8 years as the first official entomologist of the Agricultural Experiment Station in Hawaii, Van Dine became an authority on mosquito control and pests of tropical crops. In 1910, after a short term in the Bureau of Entomology, working on insects of sugarcane and rice in Louisiana, he assisted in establishing and was the first entomologist of the Puerto Rico Experiment Station at Rio Piedras, where he conducted research on sugarcane pests.

Through his studies of the economic effects of malaria on farm labor and agricultural production, made in northern Louisiana in 1913-17, Van Dine became the first entomologist to be commissioned to do entomological work in World War I. He served as captain in the Sanitary Corps of the Army Medical

Department, where his main duties were the control of malaria mosquitoes and flies in camps, as well as delousing of returning servicemen. Returning to the Bureau in 1919, Van Dine took charge of investigations of malaria mosquitoes.

He then served briefly as specialist in Extension entomology at Penn State College, giving special attention to vineyard insects. Later, as member and director of the Cuba Sugar Experiment Station of the Tropical Plant Research Foundation (1924-32), Van Dine undertook research that led to the use of several mosaic-resistant varieties of sugarcane from Java, which largely replaced the standard susceptible variety.

Mr. Van has been president of the American Association of Economic Entomologists, a member of the Entomological Society of America, Entomological Society of Washington, and Cosmos Club, and, since 1906, a fellow of the American Association for the Advancement of Science.

Under his direction, the fruit-insect work progressed markedly in the basic scientific knowledge necessary for control programs against the Japanese beetle, codling moth, and other important fruit pests.

Bennett A. Porter, who has been connected with the division since June 1917, except for two brief periods, has been appointed to head it now.—WILLIAM A. D. MILLSON.

Next pasture greener?

SOMETIMES we tend to envy the high-salaried fellows who work outside the Government. Now and then we get a chance to talk to them confidentially, they let down their guard, and things are not what they seem. One of them confided in your editor recently, and he decided Government service wasn't so bad, even if it often didn't pay half as much as similar outside employment.

The man was director of a large western industrial research institution. As he explained it, he was supposed to supervise 60 scientifically trained workers and he had 60 bosses himself. Of the 60 scientific workers, perhaps a tenth were really good. If the director hired a really good one and made certain promises, he didn't know whether he could deliver or not, because one of his 60 bosses might intervene at any time and upset plans.

He stood in the middle, trying to keep 60 subordinates pleased while he himself satisfied 60 bosses—members of the firm and of the board of directors, relatives of

higher executives, and others throughout the plant organization who had somehow corralled power and influence and wanted to stick their finger into things. The enterprise was rife with favoritism, nepotism, cliques, office politics, and chicanery of all kinds.

What seemed worst of all, much money vanished without trace. The company's finances were constantly wasted on hopeless projects carried on because someone wanted to favor someone else, and so on. It reminded the editor of a relatively small firm for which he worked years ago. Capitalized at a hundred thousand dollars, its president estimated that 50 thousand dollars worth of potential profits went down the sewer every year through sheer stupidity and wanton waste.

Thereupon we remarked that if these things happened in a Government agency, it would all be just too terrible for words. Of course, they cannot happen so easily in Government agencies because we work in goldfish bowls and our every act almost immediately becomes the object of public scrutiny, which is as it should be.

The gentleman agreed that was a fact, and then went on to say that such things happened about everywhere there were human beings of the kind to make these things possible. Unless you were top boss, you couldn't possibly clean up the organization and you might as well get out if you couldn't accept the existing situation. Instead, you were inclined to decrease your life expectancy by many years, to stand the extreme tension until you broke under the strain, and to hang on to your big salary and fine title.

All private employment does not turn out thus. Much of it is soundly attractive and produces worker satisfaction. But remember also that many of the big-shot, high-salaried employees of private industry are also under high tension and wish often for peace, security, and the opportunity to accomplish things quietly and without waste and confusion. All is not gold that glitters.

FSA work: Every field station of the Farm Security Administration tells the same story of the admirable manner in which farmers are using wartime prosperity to pay off their debts to FSA. Thus the agency's work has lightened, but drastic staff cuts have rendered the remaining workers busier than ever. Now FSA has been authorized by Congress to lend 12 million dollars in the next 12 months to returning servicemen who want to buy family-size farms. Two thousand county offices are at work on this project. Two thousand applications were in from discharged veterans even before the work started. Many veterans also have obtained rehabilitation loans, and all are being given assistance in carrying out sound farming operations through FSA's local offices.

Sweet mystery of life

WE MEAN oats; and not wild oats either. It has been contended that the high esteem in which "hoss" sense is held rests on the fact that horses make a wider use of oats for food than do human beings. We know that oats are excellent food, but we have never made them a competitor of wheat or even rice. Why? No, we are not going to answer that question; we're asking *you!* About 4 percent of our oat crop is processed into rolled oats or oatmeal; 96 percent is used for other purposes.

Of course, maize is in the same boat. Relatively little corn is used directly as food, but we eat a lot second-hand in the form of beef, pork, or poultry. So far as the horse is concerned, oats are to him what gas is to the automobile. Be that as it may, somebody is using oats for something, because the world makes use of an annual production of around 4½ billion bushels—and "that ain't hay!"

What we are interested in just now, however, is the part a local boy has played in bringing about increased production of oats, especially in the United States. In recognition of this work, Iowa State College has given T. Ray Stanton, senior agronomist, Bureau of Plant Industry, Soils, and Agricultural Engineering, an honorary D. Agr. degree.

Ray was born and raised at Grantsville, Md. He came to the Department in 1911 after acquiring a B. S. from the University of Maryland (then Maryland Agricultural College). Stanton later added an M. S. from the same institution and did some work toward a Ph. D. degree at Cornell, but was called back to the job by pressure of work. He has been with the Division of Cereal Crops and Diseases, PISAE, during his entire Department career, primarily in connection with work on improving oat varieties.

The sort of job he has done is indicated by the fact that from 30 to 97 percent of the oat acreage in the principal oat-producing States of the Corn Belt is planted to improved, disease-resistant oats created under his direction, working in close cooperation with State agencies and keeping himself in the background. The use of these means that in years where conditions are favorable for disease attacks, the production is from 25 to 50 percent more than could be expected from standard sorts. *The new varieties developed in the cooperative program under Stanton's supervision are estimated to have produced some 100,000,000 additional bushels of oats in*

1944! This would be gratifying at any time, but with the present urgent need for increased food production it is vitally important. We'd say that D. Agr. degree has been earned!—JOHN A. FERRALL, PISAE.

Ruth C. McGuire, cytologist

CYTOLOGY IS the study of cells. Not prison cells, now, but the cells of animals and plants. It's a bit confusing. The Encyclopedia Britannica devotes 10 pages to the subject. We gather that cytology is the science that treats of these animal and plant cells with reference to structure, functioning, multiplication, and life history. That's quite important, for it seems to make cytology the chassis upon which the research machine is built.

Ruth Colvin McGuire became a cytologist the hard way. In fact, when she applied for a Civil Service job, she found she had to enter the Department in the guise of a scientific aide in pathology. She had B. A. and M. A. degrees from the University of Indiana, where she specialized in botany, plant pathology, plant physiology, and plant morphology.

Working on her first Department assignment in the office of Cotton, Truck, and Forage Crop Disease Investigations, she assisted Dr. L. O. Kunkel in studies of potato diseases; helped to identify diseases on the numerous plant specimens sent to the office by field workers and correspondents; studied the smuts of cereals; worked with Dr. B. O. Dodge on the diseases of small fruits—and became one of the most skillful microscopists in the Division of Fruit Disease Investigations.

It was inevitable that this skilled worker should be assigned to the Division of Sugar Plant Investigations, Bureau of Plant Industry, Soils, and Agricultural Engineering. You may recall that the sugarcane industry of Louisiana was saved from ruin a few years ago by the prompt introduction of disease-resistant varieties. Annual production had been cut from 250,000 to a mere 50,000 tons. The end seemed to be in sight. But the cytologists and plant breeders had been on the job since the first year of the disease epidemic. With the cooperation of Department plant introducers and the aid of the Louisiana Agricultural Experiment Station, resistant varieties were developed and rushed into culture in time to save the industry.

Thanks to this effective cooperative work, directed by Dr. E. W. Brandes, the mosaic disease has practically been con-

quered. It seems rather appropriate that a woman cytologist should have played a part in a campaign that has done so much to sweeten our lives! Just now Mrs. McGuire is doing some interesting work on Indian varieties of sorghum, brought back by Dr. Brandes on his latest exploring trip.—JOHN A. FERRALL, PISAE.

Answers to questions on page 5.

- (1) Food for Growth, AWI 1.
- (2) Eat a Good Breakfast to Start a Good Day, AWI 107.
- (3) Meat for Thrifty Meals, FB 1908; Dried Beans and Peas in Wartime Meals, AWI 47; Egg Dishes for Any Meal, AWI 89; Cheese in Your Meals, AWI 16; Poultry Cooking, FB 1838.
- (4) Home Canning of Fruits and Vegetables, AWI 93.
- (5) Vitamins from Farm to You, AWI 2.
- (6) Take Care of the Wool You Have, AWI 26.
- (7) Judging Fabric Quality, FB 1831.
- (8) ABC's of Mending, FB 1925.
- (9) Stain Removal from Fabrics, FB 1474.
- (10) Take Care of Household Rubber, AWI 7.

Telephone manners

UNDER the title "Who's Calling," E. Wesley Hevner airs some interesting views on this subject in *Printer's Ink* for June 1. He opens thus:

I recently had a unique experience. I phoned a friend of mine, and his telephone operator did not ask my name. She promptly put my friend's secretary on. And the secretary also failed to ask my name, my company, the business I had with her boss, when I was born, and was I a citizen. She just gave me the guy. When I recovered from this extraordinary proceeding, I asked him, "How come?" He said they do it that way, and that all their telephone operators and secretaries are instructed to pass on every call without interrogation.

Hevner was all for that. He deplored the usual irritating catchisms which cause those who phone in to blow their top. He was all for business courtesy and a reform in company manners generally. When they asked him who he was, he always answered "Napoleon Bonaparte," and that got him through to the boss every time because the secretary swooned. Hevner also wrote:

Seems strange—doesn't it?—that businesses spend thousands of dollars to develop a friendly personality through advertising, and then cancel its effectiveness in part by up-stage telephone manners. Ever have the experience of being told by some secretary calling you for her boss to "hold the line" while His Majesty takes his time to pick up his phone, and you fiddle? That custom also should be scrapped.

Naturally there are lessons for us Government people in this homily. But one fact is overlooked: There are many people, like the writer of these lines, who go into a strange state of utter bewitch-

ment when called by telephone, wherein they simply have no idea who is talking to them even though that person is familiar. It sounds incredible but it's true.

In such instances the person who gets the call feels and acts like a lunatic, sometimes fumbling around for several interchanges until the other party says: "For heaven's sake man, don't you know whom you're talking to? This is Dick Slipcover."

In some such dilemma we ask our secretaries to ask "Who's calling?" in order not to make ill-mannered fools of ourselves. If she recognizes incoming voices no better than we, she has to ask to know. But people have accused this party right here of being up-stage, so he quit having the question asked. Hence, if you call up and the editor talks as if moving in a thick, soupy fog, just remember he probably doesn't know who you are. Wait till he comes out of his trance.

But why not begin conversations by telling the party you phoned, "This is Reuben Rutabaga talking!"

"Words for Proud Men"

The moods of Earth are numberless to men.

They are hidden in forests.

They brood in the long heat above the Equator.

They come dreaming on a wind.

They are tossed on waves.

They blossom in the cup of a bluebell.

They are sung by mockingbirds.

They sprout from the cornseed.

They wait above cities.

They die for a man when a man dies.

From Cross-Country,

by Solon Barber, Information.

Published in Holland.

A hundred clerks!

A MAN who thought the Department of Agriculture would grow to huge size if once founded, was Senator Fessenden, of Maine, who in 1862, opposed the creation of the USDA in a speech which, in part, ran thus:

A head of a bureau is nobody without clerks, and he must have a certain number. Then we shall find that there are new experiments to be tried. We shall have recommendations at once for a little more science here and a little more science there, and that costs money. In the first place, we must have the scientific men, and then we must have money for the experiments. Thus it will go on; it is only a question of time. If we begin with a department, what is the head of a

department without bureaus and without clerks? Nobody. The thing enlarges; and my word for it, it will not be many years before a similar proposition to that of the honorable senator from Indiana will be adopted or strongly urged—a department with bureaus, and, necessarily, clerks; and we shall have a hundred clerks in that department, too. (Congressional Globe 2016. Swisher, American Constitutional Development, pp. 379-380.)

Brief but important

OPA renders thanks: Charles A. Logan, Superintendent, Agricultural Research Center, at Beltsville, recently had a letter from the Maryland State OPA Director, saying that his "company" had been awarded an OPA Citation for the adoption and efficient operation of its Organized Transportation Plan. Beltsville people are sincerely cooperating in and supporting OPA's Mileage Rationing Program. Mr. Logan says that Mrs. Isabelle Philpitt, Transportation Manager, and the employees deserve the credit.

Agricultural Research Center: Secretary's Memorandum No. 681, Supplement 2, July 11, announced that the USDA Appropriation Act for 1946 changed the name of the Beltsville Research Center to Agricultural Research Center.

Postwar prospects: How many, veterans and war workers will return to farms? Will there be a land boom? What will the farmers' income be? Will crop controls be necessary? How will farmers spend their money? Will rural public works be needed? What rural health services will be needed? What rural school facilities will be required? These are some of the questions the USDA asked representative groups of farmers last year, so as to bring postwar agricultural programs into line with farmers' thinking. An analysis of replies appears in Farmers Look at Post-War Prospects (AIS 20), published recently. Ask the Office of Information for it.

Hardy L. Shirley: Director of the Forest Service's Northeastern Forest Experiment Station since 1939, Dr. Shirley has resigned to accept the post of Assistant Dean of the New York State College of Forestry at Syracuse University. He is succeeded by Verne L. Harper, Chief of FS's Division of Forest Economics. Dr. Harper assumed his new duties at the Philadelphia headquarters of the Experiment Station August 1. His position as head of Forest Economics has been filled by Dr. Edward C. Crafts, who for the past year has been assigned to wartime forest-products requirements and supplies work in Washington.

At Orlando: Here J. R. Winston works in Merton B. Waite's old sector, Division of Fruit and Vegetable Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering. H. W. Stevens has just retired. Erston V. Miller works along biochemical lines. The station is concerned with the production, transportation, and storage of citrus fruit, and growers depend heavily on its advice. All sorts of side issues crop up, like the 6,000 carloads of young tomato plants shipped annually, a half million to a carload, from Georgia to northern growers. Disease developed on shipment. A hurry call came to the station. A method of icing the cars at moderately low temperatures was worked out, which saved and did not chill the plants. Problem solved. Like our workers everywhere these fellows are constantly on their toes.

Big direct-mail operation: The Reporter of Direct Mail Advertising, Report for June 1945, published from 17 East Forty-second Street, New York 17, gives the Department a tremendous lead-article boost under the title, "The Biggest Direct Mail Operation in the World." Read it, if you can possibly get hold of The Reporter. Henry Hoke, who wrote the article, suggests that business and commercial establishments could learn much from the excellent manner in which USDA handles correspondence.

Stars: In the patio of the Administration Building in Washington there is a corner dedicated to our men and women in the armed forces. There is a service flag with 16,734 beside a blue star and 220 beside a gold star, hanging above a flexible index on which appear the names of all Department employees (both field and Washington) who have entered the service of their country.

Chicken raising: Those, both expert and amateur, who have gone in for chicken raising during the meat shortage may want to check up on how they did it back in 1750. The Library has recently acquired *The Art of Hatching and Bringing Up Domestic Fowls of all Kinds, At Any Time of the Year, Either By Means of the Heat of Hot-Beds, or That of Common Fire*, by M. DeReamur, of the Royal Academy of Sciences at Paris. The title page says the book was "Printed for C. Davis, over-against Gray's Inn Gate, Holbourn, A. Millar, and J. Nourse, opposite Katherine Street, in the Strand."

Use of aptitude and psychiatric tests in industry and armed forces may spread to government: Judge Jerome Frank (once in our AAA), of the U. S. Circuit Court of Appeals is promoting a plan to require those holding major administrative posts in government to consult government psychiatrists at regular intervals. The Judge contends that "a very considerable part of the friction between government departments can be traced to personality difficulties of one or more of the disputants."—Public Relations News Letter No. 47, June 4.

Cavia porcellus L.: In June Agriculture in the Americas, Jane W. Roller has an entertaining and instructive article on the domestic cavy—guinea pig to you. One of the few domestic animals to originate in the Western Hemisphere, it apparently came from the Andean highlands of Peru. It is not a pig of any kind, is less prolific than rumor repudates it to be, and is invaluable to experimental scientists because extremely susceptible to certain diseases they study. For instance, only guinea pigs and monkeys suffer from scurvy as do human beings, through lack of ascorbic acid or vitamin C. The animal was probably misnamed a pig because it vaguely resembles a roasted suckling pig when prepared for the table . . . and it is eaten by natives of highlands in Ecuador and Peru, either roasted or fried whole. But get the article, and read it for yourself.

Job Methods Training: Labor Utilization Division of Extension's Farm Labor Program reports excellent results in State applications of Job Methods Training. Report after report emphasizes the utility of this quickie course in analyzing steps in carrying out jobs. More and more States plan JMT institutes. Why do they like JMT? Because it works. It also teaches how to do more work with less effort. Those who come to scoff go forth to praise.

Author: Personnel man George D. Halsey, Farm Credit Administration, District 3, Columbia, S. C., is extremely well qualified, also the author of two books, with another coming up. *How To Be a Leader, and Making and Using Industrial Service Ratings* have already appeared. Halsey has had wide experience both inside and outside the Government, but on the whole he prefers Government personnel work and has settled down to it as a career. He is the author of numerous magazine articles in his chosen field of work, is capable, affable, well informed, and a credit to the service. Incidentally, Asbury F. Lever—House end of the Smith-Lever team which fathered the bill to found our Extension Service—handled information at one of FCA's banks in Columbia after he retired from Congress.

Sandhill Experiment Station: This institution on the outskirts of Columbia, S. C., was founded in 1928 by Clemson and USDA jointly. Its original objective was to find out what use, if any, could be made of Sandhill soil for crops and livestock, and George Washington is on record as saying it was about the worst cropland he ever saw! S. L. Cathcart, Bureau of Dairy Industry, is in charge of a herd there on breeding experiments and is doing good work. Emery M. Roller, Bureau of Plant Industry, Soils, and Agricultural Engineering, is leaving for Beltsville. He has worked on cotton some years at Sandhill. In Columbia the editor also met R. J. Riebold, forest supervisor; R. H. McElveen, regional manager, Emergency Crop and Feed Loan Office; R. E. Robb, State supervisor of what was formerly Distribution; and Ernest Carnes, Soil Conservation Service.

Gainesville, Fla.: G. I. Gunn, of Soil Conservation Service here, tells us that there are 33 Soil Conservation Districts in Florida, covering 17½ million acres. J. A. Texada, Jr., of Farm Security Administration, says the FSA case load is comparatively light, but that staff cuts keep remaining personnel very busy, while work connected with the G. I. loan program is developing and will give the office plenty to do. H. G. Clayton, Agricultural Adjustment Agency, says the main Florida job of this agency has been putting in 600,000 acres of pasture; of course, it has done plenty besides that, but to that it points with pride.

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USDA

FOR SEPTEMBER 3, 1945

EPQ at Gulfport

AT Gulfport, Miss., the Bureau of Entomology and Plant Quarantine has two important projects, both of which head up under B. M. Gaddis, Chief of the Division of Domestic Plant Quarantines. L. J. Padget is the stimulating scientific enthusiast who spearheads the battle against the white-fringed beetle, a seriously destructive insect pest of crops, first observed here around 1936. The beetle is an undesirable immigrant from southern parts of South America.

Though only one-twentieth of 1 percent of the U. S. is now infested—important parts of Louisiana, Mississippi, Alabama, Florida, and North Carolina—climatic, geographic, and other studies in its original habitat indicate that the beetle could spread to one-half our area. Since the larvae relish the roots of 236 species of plants and the adults show a keen propensity to live near and eat the tops of 80 more, the insect is a tremendous potential menace.

It is a curious fact that no males have ever been found. All the insects are females, reproducing parthenogenetically and ready to lay 60 to 2,000 eggs each, depending upon how well fed. Any female can thus start a new infestation elsewhere. Fortunately, she cannot fly, but must be carried to a new location. If the insects eat only grass, eggs are fewer. The adult stage lasts but a few months a year, and the attack must be terrific during that time—and it is.

Farmers rarely notice a bug when it destroys a small part of some of their crops. They take this as it comes. But when it lays low whole acres of many crops—as this beetle, characterized by a whitish fringe or rim around the body, can do—then they call for help. The beetles require vegetation in which to thrive; naked to the sun, they die. They also follow the railroads in spreading.

The antibeetle campaign, in which both the Federal Government and the

States participate, aims to prevent distant spread along with farm products and commercial shipments by suitable quarantine measures; to keep down beetle population by continued applications of poison sprays or dusts; to destroy by corrosive herbicides the weeds and wild growth serving as food or shelter for beetles; and to encourage farmers to plant crops which will be least damaged. The special sprays, herbicides, and specially designed spraying equipment surely do a blitz job. Soil in nurseries and around nursery stock is all examined and treated.

Herbicides, morning-glories

The most efficient and economical herbicides, processes, and machinery imaginable were designed to kill sheltering weeds near railway rights-of-way and in freight yards. They proved cheaper and far more effective than shovel-cutting of weeds and the railroads were delighted. In lumber yards, however, weeds usually have to be shovel-cut. All this discourages the insect. We wish we had space to detail to you the great efficiency and economy with which all this was worked out. No private industry could possibly have done a better job than Padget and his associates did on this one.

Cropping practices are changed—Extension Service and Farm Security Administration ably cooperating—to improve the farmer's income, while giving the beetle less to feed upon. Very concentrated sprays are used most effectively. Great skill and initiative have been displayed here in a vigorous attempt to hold the beetle where it is and gradually to reduce it in numbers.

H. T. Rainwater is in charge of the sweetpotato weevil work, and aid was again asked by distressed growers, which is why USDA people are here. The weevil damages the sweetpotato in both larval and adult stages. It is fond of all morning-glory plants, of which the sweetpotato is only one, and the presence

of so much wild morning-glory along the coast complicates the problem. The weevil is probably of tropical origin and seems to have appeared here about 1875.

Since the campaign began in the 6 infested States, 26 counties have been freed from the weevil. Sweetpotato growing is moved to other land where, with clean seed, the beetle is absent. It dies out in the old land for lack of food. Such cultural controls, coupled with nonplanting zones and strict quarantines, are slowly pushing the beetle back to the wild morning-glories, where it may remain permanently. Mississippi is now almost wholly clean of the beetle; 5,000 farms have been freed from its ravages. A recently developed methyl-bromide fumigation offers promise. But our boys are doing an excellent job on limited funds and the growers give them plenty of credit.

Top information changes

GOVE HAMBIDGE, writer, editor, and information man, who has been Coordinator of Research Publication for the Agricultural Research Administration since 1942, has left to become Executive Secretary of the United Nations Interim Commission on Food and Agriculture. Mr. Hambidge received an A. B. degree in 1913 from Columbia University, where he was a Pulitzer scholar. In 1935 he came to the Department as Information specialist for the Agricultural Adjustment Administration. From 1936 through 1942 he was editor of the Yearbooks of Agriculture. In 1943 he was on the technical staff of the U. S. delegation to the United Nations Conference on Food and Agriculture. Before entering the Department, he was a magazine editor, author, and free-lance writer for leading magazines. Among the books Mr. Hambidge has written are *Time to Live, Your Meals and Your Money*, *Enchanted Acre*, and *The Prime of Life*. He also edited the book, *Hunger Signs in Crops*.

Ernest G. Moore, Assistant Director of the Office of Information, in charge of Press and Radio Services, for the past two years, succeeds Mr. Hambidge. Mr. Moore holds an M. S. degree from North Carolina State College. In 1929 he came to the Department's Press Service and two years later became its Assistant Chief. From 1935 to 1937 he was assistant to the Director of Information and from 1937 to 1939 was Chief of the Press Service. He then organized and became Chief of the Division of Infor-

mation, Bureau of Plant Industry, from 1939 to 1943, in the latter year becoming Assistant Director of Department Inf. In assuming his new duties, "Ernie" continues as manager of the Department's Victory Garden Program and as a participant in Your Home and Garden Show, the weekly Department program on the ABC network.

Book nook

THE LIBRARY has received an interesting book entitled "Plants and Plant Science in Latin America," edited by Franz Verdoorn and published by Chronica Botanica. It is encyclopedic in nature, with articles by almost a hundred contributors. Department workers are responsible for many of the articles, some of which previously appeared in the columns of Chronica Botanica. In addition to the articles, the book includes the following:

A list of plant-science institutions, stations, museums, gardens, societies, and commissions in Central and South America; a selected list of travel books of a botanical nature; a list of recent publications of the Office of Foreign Agricultural Relations. The illustrations accompanying the text are fascinating, as are also the footnotes to the introductory article by Dr. Verdoorn. One of them calls attention to the usefulness to the biologist of the "new monumental" Bibliography of Agriculture, issued by the Department Library.

In his little book, rather startlingly titled "Must We Starve?" Joseph James, an English writer, invites us to consider afresh the relationship of our well-being to the condition of the land. He is firmly convinced that for the next generation this will be the problem supreme.

If you are looking for an agricultural book which has charm, *Glory Hill Farm: Third Year*, by Clifton Reynolds, is what you want. You may not always agree with this Englishman's views on farming, but you will enjoy his frank account of his struggles with his 100-acre farm.

Ranked among the "famous firsts" as to subject matter content as well as in interest to Department people is Ralph S. Bate's recently published book, *Scientific Societies in the United States*. It is an extensive account of the history and work of American societies starting with Benjamin Franklin's Junto, in 1727, which laid the foundation of the American Philosophical Society.—MIL-DRED BENTON, *Library*.

Caribbean FSA

DALE JACQUES, Farm Security Administration director for the Caribbean area, during a recent trip into Washington, reported that the FSA has now helped more than 12,000 families in Puerto Rico and 400 in the Virgin Islands during the 5 years it has operated there. This is in addition to 560 families who have become land owners through FSA's farm ownership program.

Mr. Jacques says that in his opinion FSA has been of greatest service to the islanders by making available to many of them facilities for improving health and sanitary conditions. He said that 22 group services have been organized to obtain and purify water. This service now is available to 658 rural farm families who were previously without a source of pure water.

In the barrio Carmelita, near Ponce, a group of 75 FSA families has been organized into a prepaid dispensary and nursing-care service. Because of this group participation, 525 people in the barrio have medical care not previously available to them.

Tung

AT Gainesville, Fla., works Dr. F. S. Lagassé, in charge of the Bureau of Plant Industry, Soils, and Agricultural Engineering Field Laboratory for Tung Investigations there. Other such laboratories, directed by Dr. H. L. Crane, in charge of the Bureau's tung-growing investigations (headquarters at the Plant Industry Station, Beltsville, Md.) are located at Bogalusa, La., Fairhope, Ala., and Cairo, Ga., covering the entire tung belt. Their objective is to enable growers economically to produce the most possible tung oil per acre.

Growers got into tung growing without knowing much about it, trouble developed, and they called on USDA for help. They received it, and now depend heavily on these laboratories for advice, since Lagassé and the specialists at the other stations can now successfully diagnose many tung-tree ailments as due to specific mineral deficiencies, and can successfully prescribe.

Ordinary fertilizers or random treatments with trace elements have often caused severe losses to growers. The tung specialists can usually prevent such losses, if consulted in time. Lack of cultivation and deficiencies of water, potassium, zinc, magnesium, or copper are common trouble causers, too. All told,

the tung growers respond enthusiastically to this work; there are few, if any, dissidents now.

So much oil

The whole tung problem is unusual, because the oil in the fruit is as high as 26 to 28 percent and in the kernels 60 to 70 percent, though no one knows why tung needs so much oil. R. S. McKinney, of the Bureau of Agricultural and Industrial Chemistry's tung oil investigations, also in Gainesville, is at work on better methods of tung-oil processing. AIC's most successful project here has been the development of a continuous solvent-extraction method to replace pressure methods hitherto used.

Again growers and producers are grateful to our ever-vigilant scientists. It is very easy to obtain a nonmarketable solid oil by slight deviations in method or traces of impurities in solvents used. Just why this occurs is unknown, but McKinney can tell processors how surely to avoid it. No other plant contains oil in such concentration, so tung offers special problems.

The solvent-extraction method developed at the lab actually gets out 98 percent of the oil in the whole fruit, and that is excellent. Tung oil is used mainly for waterproof varnishes and lacquers, and less than formerly, as a replacement of linseed oil. It gives better products at lower cost.

Many tung oil producers, troubled with low yields, have brought their worries here and found relief. Profits to them have gone into the thousands of dollars. Producers and growers cooperate in providing equipment. The question of impurities in solvents remains under investigation.

Negro Extension meeting

EXTENSION SERVICE took another important step toward helping colored farmers further to increase their production and conservation of food when it held a South-wide conference for Negro State and District Extension supervisors in Washington, June 23-28. The conference program covered six major problems: Post-war cotton production, a conversion program for the cotton South, methods of assisting returned veterans and displaced war workers who wish to farm, a program for farm youth, and methods of improving Extension teaching.

As a result, the 39 colored supervisors (25 men and 14 women) in attendance,

coming from every State in the southern region except Florida, returned to their home stations enormously better equipped to push the food production and conservation program. During the workshop sessions, the supervisors developed plans which they are to put into effect in their various States to help colored farmers grow and conserve more food, improve rural health conditions, and take steps toward making rural life more attractive to farm youths.

The whole conference was conducted against a backdrop of the changing agricultural economy of the South. Drs. F. F. Elliott, Mordecai Ezekiel, and Sherman Johnson, of the Bureau of Agricultural Economics, discussed the implications of mechanization, population shifts, world cotton prices, trends toward larger farms with fewer farm operators, and shifting of some farmers from cotton to other types of farming. This discussion, together with another on the seven-point cotton program, led by H. H. Williamson, of Extension, served more intimately to acquaint the supervisors with the national outlook on southern agriculture, and to prepare them more adequately to counsel veterans and displaced war workers.

Reuben Brigham and H. H. Williamson, Assistant Extension Directors; Hans W. Hochbaum, chief of field coordination; and Charles A. Sheffield, field agent, planned and directed the conference, with the assistance of T. M. Campbell and John W. Mitchell, colored field agents.—SHERMAN BRISCOE, INF.

GS fall semester

OPENING of the Graduate School's fall term on September 24 marks the beginning of 25 years of service for Federal employees, particularly in Agriculture. USDA's highly successful Graduate School, unique among the world's educational institutions, should prove more useful than ever in the period of transition from a war to a peace economy.

Registration dates are September 10-22. Courses numbering 172 and ranging from cultural to vocational, are offered in 8 major fields: Biological sciences, engineering and mechanical arts, languages and literature, mathematics and statistics, office techniques and operations, physical sciences, public administration, and social sciences. New courses this fall include: Introduction to Farming; Art Appreciation; Parliamentary Procedure; Traffic Management

Law; Federal Budgetary Procedure; Income, Living Standards, and Democracy; Problems of Reconstruction in Germany; Traffic Management Law; Contemporary Price Theory; Elements of Agricultural Marketing; Problems and Policies in Agricultural Marketing, to mention only a few.

Field employees may choose among the 15 correspondence courses. Catalogs describing these are sent on request. GS supplements correspondence instruction by local supervision and group meetings when enrollment in a local area is sufficient in one course and employees request this service.

USDA employees taking courses in GS have their credits placed in official personnel files, in accordance with Personnel Circular No. 144, September 22, 1944. Inclusion of such information is important in connection with the Department's promotion-from-within policy.

Naval stores

MANY years ago pitch was used to calk the seams of wooden sailing ships, and "naval stores" were an essential part of the ship's cargo. Rosin, a similar "resin," has been used to make fiberboard V-boxes strong and waterproof to carry tons of food, clothing, and ammunition to help wage war in the Pacific. While rosin is used principally as a sizing or water repellent in paper making, it is also used in the manufacture of soap, varnishes, chemical and pharmaceutical preparations, printing ink, axle grease, floor coverings, foundry core oils, shoe polish, matches, insulating materials, and insecticides. Turpentine is necessary for thinning paints and varnishes and for use in other products.

Today, only genuine turpentine and properly graded rosin may be sold. But at one time rosin was misbranded and misgraded, and much adulterated turpentine was sold. To protect the public, Congress passed an act in 1923 to control traffic in naval stores, establish official standards for rosin and turpentine, and provide analysis, classification, and grading service by the Department.

The Office of Marketing Services administers this act. OMS supplies Government color standards in sets of 12 grades, giving the color gradations of rosin, and provides inspection service. In the fiscal year 1945 OMS personnel inspected, graded, and classified 164,994 drums of gum rosin and 9,300 drums or barrels of gum turpentine, as well as

18,774 drums of naval-stores products for lend-lease purchase. In addition to inspection and grading activities, OMS is responsible for detecting violations of the act.—GRACE E. M. WAITE, OMS.

New man at FSA

MOST RECENT addition to the Farm Security Administration's official family is Norman L. Johnson, Assistant Administrator. He heads administrative management functions and the Administrative Analysis, Program and Reports, and Finance Divisions.

Johnson claims he began his business career at 16, when he diverted his college tuition into a venture in the Texas oil fields. Six years later, after several business and educational ventures—including a completed college career and the taking on of family responsibilities—he hooked up with International Telephone and Telegraph as director of commercial operations in such places as Mexico, Puerto Rico, and Rumania.

In 1933 he made the trek to Washington, and was assigned as financial statistician for the Federal Emergency Relief Administration. He has been tracking down the destination of the taxpayer's dollar ever since. His work has included positions as a member of the general manager's staff in the Home Owners' Loan Corporation, chief of the Civil Aeronautics Administration budget staff, and budget officer of the War Shipping Administration.

House that "Jack" built

A SPEAKER before a national scientific organization remarked that the Department's work in establishing the navel orange on the Pacific coast had been worth a billion dollars to American growers. Certainly, there have been quite a few years when the orange crops of the Pacific coast have been worth around \$100,000,000.

There is, however, another interesting angle to this introduction that further emphasizes the fact that the Department is the house that "Jack" built. One of the first jobs of the Section of Handling, Transportation, and Storage Investigations, Division of Fruit and Vegetable Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering, was in connection with problems arising in shipping these oranges from California to the East. The growers

were a good bit upset over losses en route from disease, averaging about 20 percent of the fruit shipped.

When the transportation and handling specialists promptly worked out methods which cut this loss from 20 to 2 percent, nobody had any further doubts about the importance of the work! So the introduction of the navel orange from Brazil not only founded the Pacific coast orange industry, but apparently made an even more important contribution by turning the spotlight on the necessity for studies of methods of packing, handling, transporting, and storing food products.

In March 4, 1944, *USDA*, you were told of a saving of around a million dollars a year to the citrus industry through improvements in the method of icing shipments. Then there is the story of the transportation specialist who gave pear growers in an Oregon district advice regarding changes in methods of loading the cars that saved them \$250,000 a year—a sum larger than the total annual cost of the section's activities. Profits are continuous and cumulative.—
JOHN A. FERRALL, PISAE.

Brief but important

Reorganization: We'll tell you details about the establishment of the new Production and Marketing Administration in the next issue of *USDA*. If you can't wait, write or phone the editors of *USDA* for the press release or Secretary's Memorandum 1118—or both, if you need both. We have only a couple of hundred copies, so limit your requests to necessities.

Waring's farm: In an item, McDanolds' farm, in June 11 *USDA* (p. 4), we said, "Roe McDanolds Has a Farm . . . is believed to be the first Department publication based on one farm and the farmer who owns it." Recently a Soil Conservation Service employee edified us with a copy of M. P. 486, *Teamwork to Save Soil and Increase Production*. This is not only based on a farmer and his farm, but was written by the farmer himself, P. A. Waring, of Bucks County, Pa. Farmer Waring comes out in print, and says he has a watershed problem and he and his neighbors must work together with the Department to solve it. M. P. 486 has gone far since it was first issued in 1942—to other farmers, schools, and churches in the United States and to foreign countries.

Do you know? About 7 million workers in manufacturing industries are now being served food in their own plants, as compared with 2 million before the war. As a result, both absenteeism and the accident rate drop. The Department has recently issued *Industrial Feeding Management*, a new booklet for plant managers and those in charge of industrial cafeterias and lunchrooms. Ask the Office of Information for copies.

Quick test for flour enrichment: This test, described by Louis Feinstein, Grain Products Branch, Office of Marketing Services, in June 29 *Science*, consists of dropping 2 drops of an aniline solution onto a small quantity of flour, followed by 3 drops of cyanogen bromide solution. Almost immediately enriched flour shows a yellow color, varying in depth depending on the amount of niacin present. The amount of niacin present is determined by comparison with samples of flour containing known quantities of niacin treated the same way. When tested, unenriched flour which contains a small amount of natural niacin changes color only after 10 to 15 minutes. Usually flour is enriched with a "premix" composed of thiamin, riboflavin, iron, and niacin. Thus, a test for any one of these ingredients usually indicates whether the flour is fully enriched. The test also may be used for white bread. This rapid niacin test is expected to be very useful for determining flour enrichment, since the process of testing each ingredient has been found too time-consuming for routine inspection.

Excerpts from a "quondam stenog's" letter: "Your letter about stenographers has been percolating through my mind. . . . Basic English has a vocabulary of only 850 words, with only 18 verbs. It seems to me if Government dictators were required to keep their letters, memos, directives, or whatnot within this 850-word limit, there would automatically cease to exist those horrible things: 3- to 4-page letters. . . . The secretarial letter is used chiefly as the vehicle to display the erudition and pedantry of the boss. Here in his opportunity to use all the \$64 words he has in his vocabulary, but usually he only succeeds in further beclouding the already beclouded issue."

H. B. McClure: Our motion-picture stock-film librarian has retired, leaving the *USDA* stock-shot film library as a monument to his work. McClure's service with the Department began in 1906. In 1928 he joined forces with the motion picture people. You will find his name as director on many Department films. His long training and experience, which began with a master's degree from Iowa State College, made him a natural for film librarianship when one came to be appointed. Hereafter, it will be the McClure Stock Film Library of the Department.

Memoranda of importance: Secretary Anderson's Memorandum No. 1114, July 19, outlines Department policy on securing the discharge, release, or detail of officers and enlisted men for duty in *USDA*. Director T. Roy Reid's Personnel Circular No. 150, Revision 1, July 13, tells about the new pay-day system. Washington pay days are now every other Thursday; field pay days are arranged locally. There are 26 pay periods in a year and the administrative work week is 40 hours basic, plus such overtime as may be required. Secure these memoranda through your own bureau channels.

Questionnaire: We thank you who have filled out and returned the What is your pleasure? questionnaire on *USDA* in its July 9 issue. We hope those of you who have put it aside to send in later will do this now. If you missed seeing this questionnaire, write the editor of *USDA* in Washington and a copy will be supplied.

Fat salvage: The terrific nose dive in fat salvage collections, which had been expected because of the meat shortage and natural seasonal slump, has not yet come to pass. The grand total of collections is pretty well up; with the shortage of meat in the cities, this must be attributed to the excellent co-operation of rural areas. When there is a 10 percent drop in city collections, it takes a 35 percent rise in rural collections to make up for the deficit in total poundage collections. Thus credit for the successful total collections goes to the rural areas. The Office of Supply, operating agency of this program, says that enough praise can't be given to the various *USDA* field agencies which are cooperating so well with OS field offices.

We still have copies of the Index to Volume 3 of *USDA*. Write or phone the editors.

More 2-gallon donors: Three more names should be added to the list of 2-gallon blood donors mentioned in July 23 *USDA* (p. 1). They are Fulton J. Want, Farm Credit Administration, Kansas City, James M. Sloan, Soil Conservation Service, Upper Darby, Pa., and Joseph Parker, Bureau of Dairy Industry. Mr. Want has actually given 21 pints.

Congratulations! An Australian solicitor wrote the Department a while back in quest of rainfall statistics. He was sent what he asked for. He was also sent some rainfall statistics for Australia, just for good measure. He replied saying, "I must congratulate your Department for the splendid detailed information you have." He then went on to describe the "worst drought in history" from which his locality was suffering. Finally he said: "I congratulate your country on its splendid rainfall." You may share that among you. We thought it should be brought to your attention.

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USDA

FOR SEPTEMBER 17, 1945

these, which will be sent out along with *USDA* Document No. 1, Structure, Functions, and Origins of the Department of Agriculture and Constituent Agencies, or with No. 2, Department of Agriculture—War Food Administration, and Constituent Agencies (both dated early in June) on request. Available in limited quantities. Phone the editors of *USDA*, or write T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Reorganization

THE FIRST STEP in Secretary Anderson's reorganization of the Department was announced in Secretary's Memorandum No. 1118, August 18. A Production and Marketing Administration was established as of August 20, Under Secretary John B. Hutson being designated its Administrator, with G. G. Armstrong as his deputy. R. W. Maycock was designated assistant administrator for fiscal and administrative control, C. W. Kitchen assistant administrator for regulatory and inspection work, and Col. R. L. Harrison assistant administrator for inventory management. J. B. Hasselman is director of information for PMA, H. B. Boyd, director of price, D. A. FitzGerald, director of requirements and allocations, J. B. Long, acting director of claimants program coordination, and E. B. Black, transportation officer.

This new large agency consolidates into a single unit of the Department all the following: Office of Basic Commodities, Office of Supply, Office of the President of the Commodity Credit Corporation (of which Mr. Hutson is president), Offices of the Manager and of the Secretary of the Federal Crop Insurance Corporation, Office of Marketing Services, Agricultural Adjustment Agency, Office of Requirements and Allocations, Office of Price, Office of Transportation, Office of Materials and Facilities, Office of Labor, Office of Home Food Supply, Office of Investigatory Services, and the Federal Surplus Commodities Corporation, which is in liquidation.

The field offices of the Agricultural Adjustment Agency, Office of Supply, and field personnel of the Office of Marketing Services have been consolidated into State offices under a plan that will be digested later in *USDA*; press release 1682-45, however, explains it. This announcement is based on several weeks of study by the Committee on Organization of which Milton S. Eisenhower, president

of Kansas State College, is chairman. Other changes will probably be announced, but it may be some time before that occurs.

On a commodity basis

PMA is set up on a commodity basis. Thus the answer to any question concerning cotton, for instance, can be ascertained quickly by contacting the Cotton Branch. This is true whether the question relates to price, production, or marketing phases. Enforcement of various regulatory acts is vested in the appropriate branches of PMA. School lunch, direct distribution, and other food-use and food-conservation programs are placed in the Food Distribution Programs Branch. PMA staff offices are: Requirements and Allocations, Price, Transportation, Claimants Program Coordination, and Information Service. However, the Department Office of Information continues to perform its customary over-all staff functions.

The various branches and their heads are as follows, the person named being director unless otherwise noted: Livestock, H. E. Reed; Dairy, T. G. Stitts; Poultry, T. G. Stitts (acting); Fats and Oils, W. H. Jasspon; Fruit and Vegetable, E. A. Meyer; Sugar, E. B. Wilson; Grain, C. C. Farrington; Cotton, C. C. Farrington (acting); Tobacco, C. E. Gage; Special Commodities, M. L. Brenner; Field Service, N. E. Dodd; Food Distribution Programs, P. C. Stark; Materials and Equipment, F. B. Northrup; Shipping and Storage, E. A. Levi (acting); Marketing Facilities, W. C. Crow; Labor, Col. W. R. Buie; Fiscal, C. G. Garman; Budget and Management, J. B. Gilmer; Compliance and Investigation, J. M. Mehl.

Full details will be found in Memorandum 1118 and the Secretary's accompanying letter to Department personnel, and in press release 1558-45—all issued August 18. The editor of *USDA* has secured a couple of hundred copies of

Questionnaire

ONLY ABOUT 145 of the questionnaires printed in *USDA* for July 9 have so far been returned. This is a very small sampling upon which to render judgment, especially in that quite a number simply expressed satisfaction and felt themselves unable to make suggestions for betterment. Many file their copies of *USDA* and did not wish to mutilate them by cutting out the questionnaire. Therefore a rephrased form of the questions may be printed later and sent out with an issue of the house organ to try to flush some more replies.

A majority of those who answered the questions wanted *more* of everything except biographies, historical matter, and quoted commentary on *USDA*. While the split was about 50:50 on biographies and historical articles, fewer commentaries were desired. Heed will be taken. Biographies and historical articles will be reduced to the least possible minimum and will, in the main, deal with people who really have a story. Quoted commentary on *USDA* is out.

It seems unfair, however, to judge our large personnel from so small a sample. May we therefore urge that you fill out and send in the July 9 questionnaire, if you have it? Or ask us for one.

We are not out after bouquets. Certain mild kicks anonymously delivered came in very handy to puncture our ego, and that is as it should be. We are after your opinion to guide us in serving you better via the house organ. Unfortunately, however, we simply cannot give you more of everything, bigger print, or illustrations until more paper is available. Our problem now is to squeeze in everything the agencies want to get into *USDA*.

C. G. Church: Friends of this long-time employee of the Department's Laboratory of Fruit and Vegetable Chemistry in Los Angeles, who retired for disability in fall 1942, are requested to write to him at his home, 5256 Oakland Street, Los Angeles.

Survived obituary!

LATE in July a Washington newspaper startled his friends by announcing the death of W. W. Garner, in charge of the Division of Tobacco Investigations, Bureau of Plant Industry, Soils, and Agricultural Engineering. The situation eased the following day when the announcement was corrected to read retirement instead of death! Dr. Garner retired July 31, after a service of more than 40 years. He was born at Timmons ville, S. C., in 1875; received his A. B. from the University of South Carolina, and his Ph. D. from Johns Hopkins, under the famous Dr. Ira Remsen. He came to the Department in 1904.

While his work with tobacco has been outstanding, resulting in the creation of many valuable new sorts and the improvement of cultural and handling practices and disease-control methods, his codiscovery (along with H. A. Allard) back in 1918, of the decisive influence of length of day on the flowering and fruiting of plants was the accomplishment that really shook the scientific world. Here was a fundamental law of nature previously almost entirely overlooked! It is not surprising that a famous Old World physiologist sat up the entire night after receiving the Garner-Allard report, reading and studying it. It has made a lot of folks sit up and take notice!

Recognition of the influence of photoperiodism, as this length-of-day effect is called, permits the determination at small cost, under controlled experimental conditions, of factors vital to the successful culture of plants, factors that ordinarily would have to be determined by costly trial-and-error methods. This accumulated photoperiodism data can then be used, for example, in warning growers against planting certain crops in regions where conditions make their culture a doubtful venture.

A basic discovery

One other possibility enables the florist to use electric lights to lengthen his greenhouse day, thus bringing flowers into bloom at the best time for profitable sale. It also makes it possible for the plant breeder, who has had difficulties in making crosses because the plants with which he works flower at different times, so to maneuver as to induce them to flower at the same time. With the aid of photoperiodism data, the plant explorer can have a definite chart for determining what crops in a foreign

country are apt to succeed in what parts of his own.

The Agricultural Research Administration estimates that this profoundly important discovery cost approximately \$10,000 to make. While no satisfactory estimate of its value can be made in monetary terms, it uncovered one of those basic principles without the occasional discovery of which the progress of science stops dead in its tracks. Its continuous application in plant breeding, crop-adaptation work, introduction of new plants, and extension of the latitudinal range of crops will bring returns in plenty; no fear of that.

In view of the almost limitless possibilities opened up by Garner and Allard in this length-of-day discovery, it seems a gracious gesture on the part of the newspaper to lengthen Garner's days! From his general appearance and energy, it seems that any report of his death within the next 20 years is apt to be erroneous.—JOHN A. FERRALL, PISAE.

Applause for AAA

FARMERS do appreciate the USDA. One of them sat down recently in Iowa and thoughtfully wrote the new Secretary of Agriculture about what the Agricultural Adjustment Agency has done in his locality and State. He had heard some people wondering whether AAA had really been worth while, and what midwestern operators of family-sized farms thought about it. He took Marion County in his State as an example.

Back in the 1920's of "false prosperity" in cities, farmers were in a mighty bad way. The more they tried to do, the more they owed at the bank while doing it. They worked grievously hard and paid for the privilege. When the bubble burst in 1929, with 10-cent corn and \$2.50 hogs, farmers were practically helpless. Mortgages were foreclosed, banks closed, and the struggle for bare subsistence began.

Only 3 operators out of 16 in this farmer's rural-school district had even a taxpayer's interest in their farms, and 2 of these were mortgaged for more than the farms were worth. Few children went beyond the eighth grade; many could not go to school at all. By the time of the attack on Pearl Harbor, 12 of the 16 farms were listed as owner-operated, all the children of age were going to high school, and 2 or 3 had gotten some college training.

The ever-normal granary (bushels of corn and wheat stored in steel bins) and the other ever-normal granary in the

soil made these things possible, and the AAA (and Soil Conservation Service) made them possible. Acres were rested instead of producing unmarketable crops, but were ready to go into immediate production, with the soil rebuilt, when war emergency came.

Of course, farmers had realized for years that improved farming practices—especially better soil conservation—were needed, but only the mechanisms provided by AAA made it possible for them to take action. Limestone and machinery were placed within reach of the farmers. Scientific plans were worked out. A tough job was done, and the mass attack on soil erosion got under way.

The farmer wound up his letter by recounting the endless tasks AAA committees undertook in the defense and war years and how they worked long hours over bond sales, rationing, quotas, Red Cross, building materials, machinery and gasoline allotments, handling of cattle and dairy payments, and so on, extra work done cheerfully. He concluded:

Few if any organizations have ever accomplished so much in so few years. Personally, I think that the farmer-elected and farmer-controlled AAA is democracy at its best. Anything that you can do to strengthen its position at this time will be greatly appreciated by the average farmer. A strong AAA is our best assurance of a strong and useful position in the uncertain years ahead.

(Editor's Note: Direct inquiry to headquarters as to the status of AAA functions and programs drew this reply, "AAA programs and functions are continued as an integral part of the new Production and Marketing Administration.")

Health facts

E. W. AITON, of Extension Service, has recently produced some mimeographed tables giving arresting health data which he compiled from Medical Statistics Bulletin No. 3, on Physical Examinations of Selective Service Registrants During Wartime. Rejection rates are given in terms of the number turned down per 100 registrants examined, April 1, 1942, to December 31, 1943. The rate for all occupations was 42.6; that for farm laborers and foremen was 52.8. *That for farmers and farm managers was 56.4!*

The lowest rejection rate of all was turned in by students; it was 25.7 per 100, but clerical, sales, and kindred workers had a low rate of 37.5 and a group called "operatives and kindred workers" about the same. Only domestic service workers, with a rate of 59.6 and emergency workers and the unemployed, with a rate of 56.5, managed to exceed the rate of rejection attained by farmers and farm managers, or by farm laborers and foremen.

Field workers will be interested to know

that State tables are given for rejection rates from 100 registrants examined and the percentage of registrants in each age group found to have no defects.

These results offer rather a striking commentary on rural health when it is remembered that the rejection rate for professional and semiprofessional workers was only 42.2, and that the rate for all occupations, as noted above, ran only 42.6. Outstanding as causes of rejection for all occupational classes stood mental disease and mental deficiency, including lack of education.

Mold men

IN THE SUMMER of 1941 two English scientists appeared at the Northern Regional Research Laboratory in Peoria seeking aid in their efforts to produce penicillin. Fortunately for them, the laboratory had on hand the largest collection of nonpathogenic, and possibly industrially useful, micro-organisms anywhere extant. This we owe in large part to the distinguished researcher in that field, Dr. Charles Thom, and others who worked along the same line for years.

When the English scientists arrived in Peoria, however, they met another scientist, this time a brilliant chemist, Robert D. Coghill, head of the laboratory's Fermentation Division. Raised in Kansas, Dr. Coghill was educated at the University of Kansas and at Yale. Taking his doctorate at Yale, he remained there to teach organic chemistry for 15 years, and there the editor met him, it now seems too many years ago—an alert fellow, with a broad field of interest, entirely lacking the narrow scope and mental compartmentalization too many scientists develop.

Late in 1939 Coghill was appointed to direct investigations in industrial fermentations at the Peoria laboratory, i. e., to teach micro-organisms to work for man. Due to the combined skill of Coghill and his able assistants, yields of penicillin were ultimately increased more than a hundredfold. Better-producing molds were isolated and improved nutrient solutions upon which they might grow were developed. A byproduct of the starch industry, corn steep liquor, proved to be the food that made them produce most penicillin.

Simultaneously the drug industry took hold. Using the higher-yielding molds and applying the methods developed in Peoria and in its own laboratories, it began to produce ever-increasing quantities of penicillin. As the quantity went

up the price came down, and now the drug has been released for civilians generally.

Coghill is a modest fellow who likes to term himself "a coach who had an excellent team to put into the game" when touchdowns were most needed. Under his guidance, the Fermentation Division has been the focal point of the whole penicillin development here and abroad. A steady stream of specialists has come from afar to the Northern Laboratory to learn the methods and techniques there developed. For many months now Dr. Coghill has also been consultant on penicillin to the Office of Scientific Research and Development. The people of the world owe him a far greater debt of gratitude than they will probably ever realize.

Incidentally Coghill says the Northern Regional Research Laboratory is a perfectly swell place to work, and that he has never once pined for the academic life he left behind at New Haven.

Accident prevention

DURING 1938, 110 Department workers were killed in accidents in line of duty and 8,224 were injured severely enough to lose time from work. The Department Safety Program had been established the previous year, and during the latter part of 1937 and part of 1938 was active first in surveying existing safety programs and making recommendations for strengthening them. Then Bureaus not having organized programs were surveyed and were aided to establish appropriate programs.

Prompt and thorough investigation of all serious and fatal accidents was instituted. Reports of these were analyzed and definite recommendations made to prevent future accidents from similar causes. The information was coordinated to benefit all organizations. Through contacts with the National Safety Council and other outside organizations, recommended practices were kept up to industrial standards. New safety devices were developed and others made available through general supplies.

During 1943, Department accidents reached the lowest point since we began keeping records in 1938. Only 17 workers were killed in line of duty; 2,158 were injured severely enough to lose time from work. This represents an 84.55-percent reduction in deaths and a 74-percent reduction in nonfatal injuries.

The Department Safety Council was established in January 1944, in antici-

pation of an increase in accidents, and so that the few remaining safety engineers could be of service to more organizations. The council's membership consists of representatives from each USDA agency. It holds regular monthly meetings and has established committees dealing directly with certain phases of safety work common to most organizations. The council welcomes visitors from any organization at meetings. Come and bring or send your questions—always remember: *In accident prevention, no question is unimportant!*

Farm loan act amended

THE MOST important change Congress made by its recent amendment to the Federal Farm Loan Act is the provision for making Federal land bank loans up to 65 percent of the normal agricultural value of the farm unit. Formerly the limit was 50 percent of the normal agricultural value of the land plus 20 percent of the value of the permanent insured improvements thereon. This change means farmers will be able to borrow more money from the land bank itself for necessary improvements, refinancing, or purchase of farms.

The amendment also extends for another year the time in which farmers can borrow from the Land Bank Commissioner on first or second mortgages up to a total of 75 percent of the normal value of the farm to be mortgaged. These loans are made from funds of the Federal Farm Mortgage Corporation. But the amendment requires that, in the future, farmers obtaining Land Bank Commissioner loans agree to refinance them with the Federal land bank when the loans are paid down to the point where land bank loans are available to them.

The new amendment also permits the banks to buy loans and purchase money mortgages and sales contracts from the FFMC.

A borrower, upon agreement with the bank, may make advance payments or pay the loan in full during the first 5 years the loan is in effect. This has been the voluntary practice of the banks, but it now may be a part of the contract with the borrower. Farmer-borrowers may also be permitted to defer principal payments on land bank loans in order to reduce or pay any indebtedness secured by a lien junior to the lien of the bank.

Land Bank Commissioner loans guaranteed under Title III of the Servicemen's Readjustment Act of 1944 may be

made at such rate of interest as may be necessary to qualify them for such guaranty. The rate of interest on any land bank loan in default is reduced from 8 to not over 6 percent.

Permission is also given the national farm loan association through which a land bank loan is made to have its secretary-treasurer—the paid manager—serve on its loan committee. Finally, the amendment authorizes the FPMC to return an additional 50 million dollars of its capital to the revolving fund in the United States Treasury, 100 million of the original 200 million dollars having been paid.

REA facts

THE Rural Electrification Administration, which former Secretary Wickard now heads, formulated its program in 1935, when only 1 farm in 10 had central-station electricity. Today almost half our farms have such power, and REA spearheaded this great increase.

By June 30, 1945, REA had allotted 565 million dollars to some 900 borrowers. These were mostly cooperatives serving some 1,300,000 rural consumers, including about a million farms. On the same date borrowers had paid in 95 million dollars, principal and interest, and about 19 million dollars had been paid in advance of the due date.

Loans to rural co-ops have proved best in most States as a means of getting widespread electrical power quickly to farmers. These cooperatives are locally owned and operated private enterprises, each member having an equal vote in their control, though members are not liable for the cooperative's debts.

The goal is to make electric service available to every rural establishment in each area, serving farmers in thinly populated localities as well as those in more densely settled neighborhoods. The Federal Government, through REA, merely provides cooperatives with loan funds and advisory services. The cooperatives are operated on a service, nonprofit basis, and pay no dividends to stockholders.

Local ownership and control induces efficient operation. Consumers read their own meters and figure their own bills. They give free rights-of-way and assist in maintenance work. Their directors and officers, whom they elect, serve without pay. The power line is their line in a very real sense of the word.

Electric power lightens farm labor and

boosts farm income. It promotes a higher living standard for rural people. It provides a market for electrical equipment and appliances, increasing the farmers' ability to buy goods of all sorts. It makes better schools and social facilities possible, and helps establish rural industries which provide local employment and local markets for raw materials.

Brief but important

Hybrid corn: Only 10 years ago hybrid corn was being grown on only 1,140,000 acres in this country; today it grows on 60,347,000 acres. In other words, whereas hybrid corn grew on only 1.1 percent of our corn acreage 10 years ago, it now grows on 64.1 percent, or 2 acres out of 3.

Late editions: The following USDA documents have been revised and are available for distribution: No. 5, Current List of Top Officials of the Department of Agriculture (Abridged); No. 6, Important Recent Achievements of Department of Agriculture Scientists; No. 8, Abridged List of Federal Laws Applicable to Agriculture (Including Reference to Former Functions). Additions have been made to the following to render them current: No. 3, Abridged Chronology of Agriculture's Part in the War; No. 4, Condensed History of the U. S. Department of Agriculture. These documents now all bear August dates. Phone USDA editors or write T. Swann Harding, Office of Information, USDA, Washington (25), D. C., for copies, remembering the number is limited.

Tom Cat: The Tom Cat is a rugged, powerful logging tractor built in the Forest Service equipment laboratory at Portland, Oreg. It has excited enthusiasm among Douglas fir and ponderosa pine loggers and two equipment manufacturers now consider producing it. In handling logs, it climbs grades without puffing or blowing, operates successfully on soft ground, causes a minimum of damage to standing trees, and is destined for a career of much harder work than its namesake normally undertakes.

Air loads: A 3-month experiment started by American Airlines on July 4, to determine whether . . . large-scale transport is economically feasible, involves the transportation of unprecedented air loads of fresh vegetables and fruits from California to cities east of the Mississippi. (Business Week, July 21, p. 19.)

Jeep progeny: The civilian descendant of the wartime jeep combines the functions of passenger car, truck, tractor, and power take-off for farm and industrial use. At a demonstration, power take-off attachments sawed wood, threshed wheat, and did many other farm chores. (Business Week, July 21, p. 21.)

Norris succeeds Roberts: Dr. Ernest M. Norris assumed his duties August 2 as an assistant to Personnel Director T. Roy Reid, succeeding the late T. N. Roberts. Dr. Norris, who did post-graduate work at Cornell, rep-

resents the director in specific problems concerned with racial factors; formulates and puts into effect plans and programs to help racial groups increase their knowledge and understanding of personnel policies in Department objectives. He works closely with Negro agricultural colleges in helping them to develop plans for preparing students to take advantage of employment opportunities in agriculture. A native of Texas, Dr. Norris attended Tuskegee and Prairie View, taught in rural schools in Alabama and Texas, and served on the faculty of Kentucky Colored A. & M. College before entering Cornell. Since 1937 he had been director of graduate studies in agriculture at Prairie View, Tex., State College.

Honored: Twenty-five potential Federal executives—14 men and 11 women—have been chosen from 10 Federal agencies for the second administrative intern training program which began August 20 and ends February 15. The purpose of the program is to select promising employees and give them the general and specialized training to fit them for key posts within their agency. Three of the persons chosen came from Agriculture: Florice K. Spears and Robert I. Miller, former Office of Supply, and Ann W. Nisewander, Bureau of Agricultural Economics.

OSPR head: E. D. White was designated acting director of the Office of Surplus Property and Reconversion, effective August 1.

Good news: Beginning the week of September 9, Department employees went on a 40-hour, 5-day week. And that's not all. An order issued by President Truman August 23 restores these holidays to Federal workers: New Year's Day, Washington's Birthday, Memorial Day, Fourth of July, Labor Day, Armistice Day, Thanksgiving, and Christmas. The President, in a memo to Federal agencies, also recommended that the wartime restrictions on annual leave be removed.

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RALPH H. ROGERS, *Assistant to Chief, BAE.*

HAROLD F. EISELE, *Division of Training, Office of Personnel.*

GORDON K. ZIMMERMAN, *Chief, Information and Education Division, SCS.*

C. E. RANDALL, *Division of Information and Education, FS.*

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USDA

FOR OCTOBER 1, 1945



The new Chairman of *USDA's* Editorial Advisory Board, Under Secretary Hutson, standing beside Secretary Anderson in a recent photograph which, at the rear, gives an excellent view of the buildings of the Department of Agriculture in Washington.

I am very glad to serve as chairman of the Editorial Advisory Board of *USDA*, for I feel that it will give me an opportunity to keep in closer touch with affairs which relate directly to employee welfare. The house organ fulfills its functions well, and is a valuable disseminator of information for our personnel both here and in the field. I came up through the ranks of the Department myself, and I know a good deal about the interests and problems with which you are all faced. It is my intention to learn more about them.

I wish that it were possible for me to greet each and every one of you personally. Since it is not, I take this means of reaching as many as I can. For those in the Production and Marketing Administration, as well as the rest of you in the entire Department, it is my sincere wish that we may all work together cooperatively in maintaining and extending the fine reputation for public service which has marked the Department for so many years.—JOHN B. HUTSON, *Under Secretary*.

PMA State assignments

ADMINISTRATOR J. B. Hutson has announced assignments of Production and Marketing Administration functions and personnel for each State, effective September 1. These cover primarily Agricultural Adjustment Agency and Office of Supply programs formerly handled by State offices. In 30 States former AAA and OS field operations are placed under a PMA State director, who has over-all supervision, plus specific responsibility for production activities. An assistant State director is his associate and is primarily concerned with marketing programs.

State directors are administratively responsible to the PMA Administrator, reporting through the Field Service Branch, the Director of which will provide them with general program instructions. Specific instructions on program operations will reach State directors through the PMA Washington branches responsible for the different programs.

The production programs comprise agricultural conservation, adjustment, crop insurance, sugar payments, and related activities. The marketing programs comprise school-lunch, direct-distribution, and related food-use and food-preservation programs. Price-support, loan, subsidy, purchase, sales, and marketing programs, and certain other functions will be assigned to State offices. State AAA committees will continue to perform the same functions as heretofore

with respect to agricultural conservation and crop insurance. In States where the AAA chairman is not also the PMA State director he will report to the latter.

In the other 18 States there will continue to be separate offices for production and marketing programs, the chairman of the AAA State committee being responsible for operations largely related to production. State officers of marketing have been designated for these 18 States, to perform essentially the same functions as the former State directors of OS. AAA State chairmen in these States will report directly to the Director of the Field Service Branch, while State officers of marketing will be responsible to the PMA Administrator.

If you want more details, write or phone the editors of *USDA* for copies of the press release, or ask Press Service (phone 6114) for 1682-45.

Louse factory

E. F. KNIPLING is director of the war-emergency field laboratory the Bureau of Entomology and Plant Quarantine has at Orlando, Fla., housed in several temporary frame buildings, with about 75 employees. Knipping works with such absorption he doesn't realize it's hot down there; he'll smother and cook you alive in his office without being aware of it! This work heads up under Dr. W. E. Dove, Chief, Division of Insects Affecting Man and Animals.

Until the war, more work was done on insects affecting animals than on those which bothered human beings, but, with war, disease-carrying lice became problem No. 1. That, among other things, involved setting up a louse factory and producing body lice for test on a mass scale under conditions which best suited them. The work with DDT and typhus-bearing louse destruction is well known now. Here is where it was done.

This Orlando research laboratory came into existence through funds allotted by the Office of Scientific Research and Development and by the National Research Council. But the armed forces were behind it all. They wanted ways of destroying insects injuring the health of men, and quickly. EPQ came through, largely with DDT. Incidentally, DDT was only one of the thousands of most highly recommended insect killers that came in for test. It looked no better than the rest till tested.

The tame lice must be fed. A group of subprofessional laborers is maintained in part as their grazing ground. Daily the

bits of wool cloth to which the insects cling are placed on their forearms, and the lice go to work and fill themselves up. They are kept on the cloth in glass crystallizing dishes at just the right temperature; fortunately they cannot crawl up the glass walls. None of the insects here, of course, carry disease germs. Periodic mass slaughter makes that certain.

As is now well known, the introduction of DDT has likewise introduced altogether new and novel methods of insect killing and louseproofing, such as impregnating clothing and spraying walls for long-time protection. The work naturally spread to a study of destroying all insects of medical importance.

Mosquitoes, too

There is also a scientific mosquito-producing factory here, for mosquito control may be said to be problem No. 1 now, since DDT worked so well for lice. The mosquitoes are reared most carefully, everything being done to foster their reproduction, growth, and enjoyment of life. They are fed rabbit blood and dog chow. They fly happily about in screened cages, laying their eggs in wooden blocks with a hollow filled with water. Later the blocks are thrown in barrels of water and, presto, thousands more mosquito larvae!

Again the subprofessionals come into play, their arms covered with mosquito repellents to be tested. They thrust their forearms into the screened cages to see whether the repellent works. So far some repellents have been found which work 3 hours, but 12 at least is the objective. The scientists are at work on methods of destroying mosquito larvae and adults and also of protecting human beings from the adults.

Another project concerns mites, the little fellows that cause chigger itch, but which in parts of the Pacific area also spread disease. Quite effective methods of mite control have been worked out. Finally, the laboratory is working on materials to destroy flies. This work parallels that on adult mosquitoes, as about the same things work. On the battlefield, blowflies which breed in decaying corpses must be controlled. Minor projects concern bedbugs, cockroaches, fleas, and scabies mites.

The laboratory works at high pressure. Everyone is intensely busy, absorbed, stimulated. Many promising leads must be ignored for the time and worked out later. From 600 to 800 materials which come in must be tested monthly, at least in a preliminary way, for new, highly recommended panaceas

keep arriving. Many materials have come from Germany since the European war ended, but none has proved as good as what we already had.

The staff also conducts training conferences each month for officers of the Army, Navy, and Public Health Service. Since October 1943 more than 1,000 officers and authorized civilians have benefited from direct contacts with the research workers.

While the research has been intensely practical and rather hurried, profoundly valuable results have been achieved. Much that will greatly benefit the public at peace has been unfolded. The old peacetime tendency of many research workers to puddle along in ruts over minor details has been eliminated. The staff is on its toes, tireless, energetic, and highly efficient. Knipping is mightily proud of them.

Postwar plans

AS EARLY AS May 1940 an Interbureau Committee on Post-War Programs was set up to stimulate and coordinate postwar planning within the Department. National activity leaders were named to concentrate on specific problems or phases of agriculture. Nine regional postwar committees were designated with membership representing the State agricultural colleges and the field offices of the Department. Within the past year reports have been published on a wide range of subjects presenting the findings and recommendations of work groups under the designated activity leaders.

Here is the line-up as to activities and activity leaders:

Maintaining full employment, James G. Maddox, Bureau of Agricultural Economics; international trade policy, Robert Schwenger, Office of Foreign Agricultural Relations; regional conversion, F. F. Elliott, BAE; production adjustments, Sherman E. Johnson, BAE; fertilizer policy and programs, William A. Minor, Office of the Secretary; distribution, marketing services, and price policy, F. V. Waugh, Production and Marketing Administration; conversion of marketing and processing facilities and methods, F. L. Thomsen, BAE; farm credit, C. W. Warburton, Farm Credit Administration; conservation and development of crop and pasture land, Melville H. Cohee, Soil Conservation Service; forest land, Raymond E. Marsh, Forest Service; range land, F. G. Renner, SCS; industrialization of rural areas and agricultural industrial relations, Mordecai Ezekiel, BAE; rural education, M. L. Wilson, Extension Service; social security for farm people, Carl C. Taylor, BAE; rural health, F. D. Mott, Farm Security Administration; rural housing and farm buildings, J. D. Pope, FSA; rural electrification, James E. Salisbury, Rural Electrification Administration; farming opportunities for veterans and others, V. Webster Johnson, BAE; disposition of surplus property, E. D. White, Office of Surplus Property and Reconversion; farm labor problems, Carl C. Taylor, BAE;

land tenure, Marshall D. Harris, BAE; nutrition, Esther Phipard, Bureau of Human Nutrition and Home Economics; rural public works programs, Robert A. Walker, Office of Budget and Finance; agricultural cooperatives, Harold Hedges, FCA; land values, E. C. Johnson, Sec. If interested, ask for material on any of these subjects.

The names and addresses of the chairmen of the nine regional postwar committees are:

W. S. Middaugh, 217 Center Building, Upper Darby, Pa., Northeast region covering Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Pennsylvania, and Maryland.

Gordon R. Salmond, 3019 South Building, Department of Agriculture, Washington 25, D. C., Appalachian region covering Virginia, West Virginia, Kentucky, Tennessee, North Carolina.

Thomas S. Buie, Montgomery Building, Spartanburg, S. C., Southeast region covering South Carolina, Georgia, Alabama, Mississippi, Florida.

Lippert S. Ellis, 614 Donaghey Building, Little Rock, Ark., South Central region covering Louisiana, Arkansas, Oklahoma, Texas.

Elmer A. Starch, Rudge & Guenzel Building, Lincoln 1, Nebr., Great Plains region covering North Dakota, South Dakota, Nebraska, Kansas, Wyoming, Montana.

Gladwin E. Young, 623 North Second Street, Milwaukee 3, Wis., Midwest region covering Ohio, Indiana, Illinois, Wisconsin, Michigan, Missouri, Iowa, Minnesota.

Cyril Luker, P. O. Box 1348, Albuquerque, N. Mex., Southwest Inter-Mountain region covering Utah, Colorado, Arizona, New Mexico.

J. A. Hall, United States Courthouse, Portland, Oreg., Pacific Northwest region covering Idaho, Washington, Oregon.

S. B. Show, Appraisers Building, San Francisco 11, Calif., California-Nevada region covering California, Nevada.

Write directly to these regional chairmen concerning matters of regional or State significance.

Research centers

GENERAL MOTORS boldly buys full pages of advertising space to tell the public about the new General Motors Technical Center, a 350-acre development outside Detroit, which is to provide expanded research facilities, and to co-operate with educational institutions, foundations, and distinguished individuals engaged in the pursuit of progress in science, engineering, and functional arts. The center will have ultramodern buildings and equipment, and will employ about 2,000 people. Aside from laboratories it will have libraries, exhibits, studios, auditoriums, meeting halls, living quarters, dining rooms, lecture halls, and offices.

This is all as it should be, but what about our own Agricultural Research Center at Beltsville, Md.? How many are aware of its extent and facilities? We do not buy space in newspapers to advertise its magnitude and accomplishments, but it is there. It spreads over 13,900 acres,

comprises about 36 laboratory buildings and 31 greenhouses, and employs a staff of 2,200. There are also approximately 100 barns and storage buildings, and 500 other structures such as small animal houses, poultry houses, granaries, mechanical shops, apiaries, warehouses, and a sewage-disposal plant.

These buildings, with roads, service facilities, equipment, and land cost \$13,000,000. It took that much money to finance our part in World War II for about 1½ hours, while it took 2 billion dollars to finance the development of the atomic bomb. Furthermore, a single research discovery such as has often been made by Department scientists will frequently return to the people of the United States more than 13 million dollars a year in perpetuity. We shall have more to say about our own USDA research center later.

How to say it

WE WRITERS usually cherish what we compose as mothers love their children and some men cling to gold. We cringe when the editor's pencil commits mayhem on a single sentence. Every punctuation mark and conjunction is precious in our sight. Yet sometimes we miss the boat.

Too frequently, authors of bulletins write as if they were looking over their shoulders to catch the involuntary reactions of their colleagues. And others of us turn out our stuff with a shovel, self-righteous in the belief that we know what our readers want or need and that we've known how to write it for years and years.

What the city editors and teachers of journalism and rhetoric, under whom we once trained, forgot to remind us is that two-thirds of our rural farm adults never got as far as high school. Others are on the horizon of literacy. Millions of them excel us writers in practical experience, resourcefulness, and intuition. But they don't read as well or as easily as they farm, ranch, or home-make.

These people are confused by many of our stock words . . . *adequate, condition, maximum, responsibility, characteristic, recommend, analyze* . . . But the words and phrases they use constantly are short and vivid. They *round-up* cattle, *cull* hens, *dip* and *drench* sheep, *slop* pigs, *gather* eggs, *make* or *fix* breakfast (depending on the region). They *bust* the middles with their plows, and their dogs *tree* possums. To go highbrow in saying it, their language is one of sensory perception and appeal.

Recently in reading a Government bulletin addressed to lay readers, we faltered on a sentence of 84 words which contained 3 principal clauses, 3 dependent clauses, and at least a half-dozen prepositional phrases. Not to mention a participle dangling helplessly. And it wasn't an income tax regulation, either. It was about pastures.

Linguistical slide rule

One other bad turn those city editors and teachers did us was to drill us in the impersonal, formal style. They taught us to say: "The needs of a pasture soil for lime and fertilizers cannot in all cases be estimated with sufficient accuracy to assure successful growth." It's only after we've learned from our farm readers that we've had the courage to say: "It's not always easy to tell when your pasture needs more lime and fertilizer."

When we write a bulletin on tanning hides, we spend a couple of pages on the history of tanning and a couple more on "why tan hides." Then we throw in a few definitions and a list of don'ts. On page 12 we find what the reader really was keen on knowing—the steps in tanning a goat pelt. (Moral: Begin psychologically, not logically.)

Alas, though. We offer three possible methods of tanning the hide, and choice of the correct method depends upon seven variables. (Moral: You can't tell the whole truth. As an educator you've got to decide what to leave out and take the responsibility for it.)

What's more, all the formulas we give require either a chemist's scales, an eyedropper, or a graduated measuring glass. Consequently, our readers with time and transportation take the bulletin to a druggist who cusses bureaucrats while he sharpens two pencils. (Moral: Translate your ingredients into cups, teaspoons, tablespoons, or measurements that needn't be computed with a logarithm table.)

Maybe you don't need to apply what E. R. McIntyre, of the USDA Press Service, calls a "linguistical slide rule." But you'll produce better stuff by sticking to short sentences; by leaning on simple words that are familiar and concrete; by throwing in a general sprinkling of personal references.

Even after you've got that formula down pat, though, you haven't arrived at good writing. You must have a message and sincerity and a true love for your readers. There's no technique for obtaining those. And if you haven't them, you're licked already.—LAURA G. LANE, *Extension Editor, Texas.*

Orange-juice bricks

DR. A. L. STAHL, a horticulturist at the Florida Agricultural Experiment Station and Florida University, Gainesville, is a live wire. Young, serious, and full of useful ideas, he is really making progress. Florida's citrus-fruit production is increasing rapidly and will continue to increase. Means must be found to make citrus more of a staple and less a seasonal crop. Stahl seems to be hitting on the solution to this problem.

All methods of preserving orange juice so far used have given a product too different in taste from the fresh liquid, really to please the American public. So Stahl thought maybe he could concentrate the juice without hurting the flavor by freezing out the water, centrifuging the slush, and perhaps repeating the process once. It worked. The result is a concentrate four times the strength of the original, without injury to the vitamin content or loss of flavor. Only 4 or 5 percent of the original solids in the juice is lost.

The juice is carefully squeezed, the hand being used to hold the orange over the reamer. For it is rind oil that puts the burp in orange juice, and contamination with that must be avoided. Freezing is almost instantaneous on a revolving drum, without physical or chemical change to the juice. The juice is sieved and the air removed by vacuum, then concentrated by freezing. A concentrate 8 or 10 times the strength of fresh orange juice can be made, which is so acid that it fizzes when it hits alkaline cement, but citric acid crystallizes out, so that isn't used.

The 1:4 concentrate will keep 2 months at room temperature. It can also be frozen to a soft brick in a wax container and so kept perfectly at about -5°F . To consume, add three parts of water and you have cold fresh orange juice indistinguishable from the original with which the process started. The process can also be worked on grapefruit and tangerines, and the syrup could be dispensed like soda syrup.

New sanitary package

Stahl is also working on a process that almost indefinitely preserves fresh fruits and vegetables at ordinary storage temperatures. They are covered with a plastic called pliofilm, a rubber product, which carbon dioxide can penetrate. Slightly heated, it conforms to their shape perfectly and, though only a few ten-thousandths of an inch thick, seals,

makes a permanent sanitary container, and costs but about a third what it does to wrap oranges in tissue paper.*

Stahl finds this plastic preserves grapefruit from rind-checking in storage, protects an ear of corn better than the original husk, and will facilitate picking ripe tomatoes and other vegetables in Florida for shipment full-ripe to distant markets. Carrots, celery, even a kitchen knife, can be sealed in these curious pliofilmed sanitary packages. After the war, when pliofilm is available generally, look out for this process. Meanwhile, Stahl is installing pilot-plant-scale set-ups to perfect both processes.

He is also working on dehydrated foods, particularly a meal made from the dehydrated outer leaves of celery, which are generally discarded, but are high in food value, are produced in large quantity in Florida, and constitute a waste product of which it is difficult to dispose. This meal is an excellent seasoning or soup base for human food, but also proves better than alfalfa meal, which has to be brought into Florida, as a cattle and poultry feed. The work ties in with some done at our Eastern Regional Research Laboratory.

Stahl is intensely interesting. He is one scientist who knows how to tell his story fascinatingly.

USDA Clubs

ARE YOU a member of a USDA Club? How much can you tell a stranger about the work done by the Department? How well do you know your coworkers—aside from the people in the office next door? There are 80 USDA Clubs in Department headquarter cities in 39 States and Puerto Rico. These clubs, made up of Department employees, serve a helpful purpose by creating better public servants. This is accomplished by increasing the overall knowledge of personnel about the Department's far-flung doings as well as becoming better acquainted personally.

These clubs are informal groups which for the most part represent all agencies and all levels of employees in their particular areas. They elect their own officers and meet as often as they wish (usually once a month) for whatever type of program is desired, be it lecture, panel discussion, or after-hours social.

A 16-page booklet for use in organizing USDA Clubs and for assistance in the administration of those in existence has recently been issued. Subjects discussed are: USDA Clubs of today, early history

of the clubs, purpose, objectives, accomplishments, administration and organization of the clubs, suggested outline for a club constitution, and services available to the clubs from Washington.

Personnel Director Reid's foreword observes that each locality has specific problems which Washington is glad to aid in solving. Comments and suggestions about your USDA Club or requests for assistance in organizing one should be directed to E. R. Draheim, Division of Training, Office of Personnel, U. S. Department of Agriculture, Washington 25, D. C.

Are you swamped?

ARE YOU swamped, when you suddenly wake up at your desk in the morning? On a field trip not so long ago, the editor mentioned to the director of a research laboratory the slow, meticulous worker who is always swamped. Material sent him to read lies on this worker's desk almost interminably. His conscientious plodding keeps him always far behind and his desk is continually littered with matters he should have attended long since, but he feels he is just too busy to do any better.

The director had long given such workers his serious consideration. For one thing, he routes material that is to be read and passed along first to quick workers who will get through with it promptly. Routings are neither in alphabetical order nor from the top downward in strict hierarchical rank. The material finally lodges on the slow worker's desk where he can take weeks to dispose of it, as is his habit.

Such slow workers, the director said, are not better than fast workers. Many who turn off great quantities of finished business with extreme rapidity, are also intelligent, accurate, and conscientious. Slow workers are usually troubled with compound inertia and a dash of plain laziness. Asked for reports, however, they always have time to prepare voluminous detailed documents designed to impress others with the scope, quality, and multiplicity of their activities.

Such workers are swamped merely because they swamp themselves, usually by unsystematic and disorderly work habits. They get finally to like their littered, piled-up desks and to feel a thrill of accomplishment upon seeing the disorder they have created. But the competent and high-quality workers are those who turn off a great deal with considerable speed. So held this director.

Science notes

IT MAY BE news to you but sweetpotatoes are very sensitive. They can easily be lost in storage or at harvest. Dr. J. S. Cooley, of the Plant Industry Station at Beltsville, has found out how to harvest and store sweetpotatoes so that far fewer of them rot. Prompt curing of sweetpotatoes declared eligible after severe examination does the trick. They are first held 10 or 12 days at 85° F. and 85 percent humidity for curing, then stored at 55°–60°. Culling the susceptible part of the crop before curing and storing is very necessary.

Meanwhile the Utah Agricultural Experiment Station rises to remark that if *only a very little bit* of baking soda (a trifle on the tip of a spoon) is used in cooking green peas, no vitamins are lost. The soda helps brighten the green of the peas and softens their fiber. Used in larger quantities it destroys considerable vitamin B₁ and C, and also imparts an unpleasant flavor. So remember, now, *just a mere pinch*.

People are still asking Department dairy specialists whether thunder and lightning causes milk and cream to sour, and the specialists are still telling them no. It appears that thunderstorms get blamed for this mischief because they customarily occur in hot weather when milk and cream are anxious to sour anyway. The bacteria which cause souring increase rapidly in milk when it is warm. Thunder doesn't do it. It doesn't even curdle the cream on summer fruit desserts. Forget it.

New research sheets

Nine new Research Achievement Sheets have issued recently from the Agricultural Research Administration, compactly giving all relevant information about nine important discoveries. Each sheet is a condensed description of the accomplishment, its present stage of development, and its practical applications, along with an estimate of the cost and value of the work in monetary terms, when this is possible. The reports are prepared in nontechnical style, but contain all needed reference data.

The sheets just issued discuss: No. 35, the use of rotenone powders to save the raspberry crop, worth about \$200,000 a year; No. 36, the manner in which safe planting dates reduce wheat damage by the Hessian fly, worth about 65 million dollars a year; No. 37, the epochal discovery by Garner and Allard of the influence of day length (and not only light intensity) on plant growth, which has already been discussed in *USDA*; No. 38, the manner in which abaca, or Manila hemp, production was established in the Western Hemisphere, which had great war benefit; No. 39, the de-

velopment of a new instrument to test the tenderness of all the postwar meat we intend to consume; No. 40, the control of apple scald by the use of oiled wraps, worth 2 million dollars a year; No. 41, the first successful fungicide for peach brown rot and scab, which can become worth 5 to 10 million dollars a year; No. 42, effective drug treatments for hookworms, so far worth 75 million dollars; and No. 43, the catalogue of world animal parasites, worth a hundred thousand a year. *Ask ARA for them by number.*

Mail merry-go-round

DOES YOUR mail look different lately?

To the employees in the USDA post office the mail certainly does look different lately. With all the old organization addresses, *plus* the new branch designations, *plus* some agencies that have not been in existence for the past 15 years, the post-office employees have been on the merry-go-round and they are becoming slightly dizzy from the effects of the whirl!

PLEASE, PLEASE, write the name of the agency or branch (not the division, the section, or room numbers) on all mail to be delivered within the Department. This is extremely important, otherwise the mail may circulate from office to office prior to delivery. Field offices also should indicate the agency or branch on all communications.

Please advise correspondents of your change of address. Publishing houses, particularly, should be advised to change their mailing lists. *An average of 1,000 pieces of mail per day is received in the Department post office with incorrect or incomplete addresses on them!* This necessarily delays delivery of the mail. Your cooperation is earnestly solicited!!

Hemispheric researchers

SCIENTIFIC experimentation is now being employed on a hemispheric basis to develop supplies of commodities which the U. S. needs but does not produce. Cooperative agreements between the USDA and the Governments of Costa Rica, Ecuador, El Salvador, Nicaragua, and Peru have resulted in the establishment of cooperative experiment stations to stimulate the production of complementary commodities. Experiments are being conducted both here and in Latin America by scientific specialists in various fields.

The work includes agronomic investigations, demonstration, extension teaching, and the selection and multiplication of superior plant-propagating material. The most important commodities the scientists are striving to encourage are quinine, rubber, insecticidal plants, tea,

and rope fibers. Many of these products grow best in the tropics and should do well in Latin American countries. Work with hevea or plantation rubber plants and cinchona, the source of quinine, has been under way at the Peruvian co-op experiment station at Tingo Maria for several years.

Investigations on rotenone production have progressed well since cuttings of derris plants became available from the USDA experiment station in Mayagüez, P. R. Corollary work is also being done in the fields of botany, soil conservation, and land use. Much has been accomplished through extension teaching and demonstrations to improve subsistence-farming methods and living standards. An interdepartmental committee, as early as 1939, took the initial steps toward establishment of this hemispheric program from which much long-range benefit may be expected.

President's message

IN HIS message to Congress, September 6, President Truman suggested that salaries of Members of Congress be increased as a "first step in creating a decent salary scale for all Federal Government employees." He went on, "The most important impediment to obtaining efficient administrative officials in the Federal Government has been the pitiful wage scale." He told how able and experienced men who had worked for the Government during the war, patriotically and at great sacrifice, had to leave that service now, though "many would be willing to remain at adequate salaries." He continued:

"In most of the various classifications of Federal employees, the wage scales, with few exceptions, are obsolete and inadequate. . . I sincerely hope that the Congress will take early steps to provide decent wage scales for its members and for the executive and judicial branches of the Government."

Section 9 of the message was devoted to agriculture. Farmers were praised for their magnificent wartime job. But the better-than-average weather which has aided them for years may not continue, so the Department of Agriculture is planning another year of full production. The total acreage planted will be about the same as this year, though the demand pattern may differ. The Government will also aid farmers in every possible way to adjust to a peacetime basis without recurrence of the disastrous conditions of 1920–21.

The President said, "The Secretary of Agriculture has assured me that he will

use all means now authorized by the Congress to carry out the price-support commitments." Additional measures are needed, however, and the President recommended that the half billion dollars of lend-lease funds set aside by Congress for price support of farm commodities be made available to the Commodity Credit Corporation on a continuing basis.

Further strengthening and development of crop insurance also was recommended. The "wise national program in support of scientific research in agriculture and forestry, and the program for the conservation of our soil and forest resources" were commended as having "paid large dividends during the war." Their continuance and strengthening were asked. The Secretary will make further recommendations after additional study of problems facing farmers.

Something out of waste

AROUND 200 million tons of unmarketable farm material are produced annually. Much of it is plowed back into the soil to maintain fertility and prevent erosion. But at least half of it would be available for making motor fuel, according to the Bureau of Agricultural and Industrial Chemistry, and its Northern Regional Research Laboratory at Peoria is ready with a plan. It has developed a process which will convert corn cobs, sugarcane bagasse, peanut shells, flax shives, oat hulls, and cottonseed hulls and burs into liquid motor fuel.

This method of making something out of a waste—90 to 95 gallons of motor fuel from a ton of waste material—is ready for large-scale test. Half the fuel produced is ethyl alcohol. A continuous process for working up corn cobs and cottonseed hulls has been worked out by Drs. E. C. Lathrop and J. W. Dunning. So promising is it that a new building with modern equipment will be erected and staffed with 15 scientists to show what the process will do on a semicommercial scale. Dr. Dunning will have charge of the plant.

The building—66 by 44 feet and two stories high—should be equipped and ready to go by the first of next year. In essentials, the ground farm residues are treated with acid to produce sugar solutions which are then fermented to make alcohol, acetone, and butanol. The new plant is expected to make 2,000 pounds of dextrose, 1,600 of xylose, 1,000 of lignin, and 200 pounds of valuable furfural from 6,600 pounds of raw residue in 8 hours.

This work represents a phase of the Department's part in a broad program for large-scale research on synthetic fuels authorized by Congress in 1944.

Azalea-spot control

WHEN a horticultural magazine practically dedicates an entire issue to the control of one disease, that's news; and when the Department has a finger in it, it's USDA news! Home Gardening for the South, July, featured an article, Azalea Petal Blight Can Be Controlled, by Cynthia Westcott, announcing what amounts to a reprieve from a death sentence to azalea gardens of the South; and in the South the azalea is all that roses are to the North, and more.

USDA Circular 556, A Flower-Spot Disease of Cultivated Azaleas, by Freeman Weiss and Floyd F. Smith, tells how some dozen years ago a hitherto unrecognized disease attacked azaleas. C. Norwood Hastie, Sr., of Charleston, S. C., sensed the seriousness of the outbreak and brought it to the attention of the Department; in fact, he financed the early battle against it. By 1940 it had spread over the Gulf States and even to California. In the meantime, Department investigators had worked out the principal facts concerning the disease, but no fungicide then available controlled it effectively. Then the Army took one of the investigators, and his successor had to be recalled for important food-production work. What to do?

"Why not ask Cynthia Westcott to look into it?" suggested Dr. Anna E. Jenkins. "She's probably better trained than any one else available. And she has a Ph. D. from Cornell; the second woman to obtain one from its Department of Plant Pathology." (Dr. Jenkins herself was the first!) Dr. Westcott is quite a personage in her own right, for she's the "Plant Doctor" of Glen Ridge, N. Y., widely known through her contributions to the garden sections of the New York Times and other papers, and through her book, The Plant Doctor Visits Your Garden. She was asked to undertake the work.

Sanitary measures such as picking off diseased blossoms, treatment of the ground with chemicals, and use of mulches were not enough. But a number of promising new fungicides had been developed and introduced in connection with the war effort. Dr. Westcott looked into these and was able to demonstrate that protective spraying, properly timed,

would control the disease. Of the many new wartime chemicals tested, dithane and 604 were found to give almost complete control.

"Dr. Westcott modestly credits her success to the new wartime chemicals at her disposal," says the magazine's editorial comment on her article, "but those who have followed her work know that her skillful use of these chemicals, her almost dogged perseverance, and her enthusiasm and interest in the problems are the real factors that led to final success."—JOHN A. FERRALL, PISAE.

Public servants

A HIGH-BRACKET field employee with a scientific background recently wrote USDA a letter containing some thoughts that should be passed on to you. He emphasizes the fact that it is our duty to give public service, not to build up our division, bureau, or department. We are all so likely to put the administrative unit first in our thinking and to serve the public only within that strict bureaucratic framework. We forget that we live in an age when universities are no longer run for the professors, churches for the clergy, or government institutions for their employees.

We can easily become so cloistered and secluded within the specific precincts of our own sacred bureau, division, or section as to forget that we are first of all public servants. Unconsciously we begin to goosestep around in avoidance of the other fellow's preserve so as to insure that he will avoid ours. Finally, someone who wants information protests that after spending a day talking to seven people he still doesn't have the information that he wants and that certain Government agencies should give him.

It doesn't mean that we should try to do the other fellow's work for him. But we can, if we exercise ourselves, do something to assemble more complete information than we are sometimes inclined to give inquirers. We do not have to shut them off with partial answers. For a question can get kicked back and forth between two bureaus or even two divisions almost interminably, whereas the important thing is not the administrative status of either unit but service to the public. The public snarls "bureaucrats" at us when we act thus, and it should.

We need to be reminded again and again of what Representative Ramspeck said in General Departmental Circular 40, to the effect that we are employed to

serve the public, and that the public does not fit itself to our administrative subdivisions. It is not interested primarily in the names or functions of bureaus, administrations, or agencies; it is interested in getting certain information or having certain services performed.

These reflections led our correspondent to suggest that even the lowliest of employees can from time to time perform courteous and helpful public service. If an employee does so with sympathetic consideration and proper understanding of an outsider's needs, he or she should be the subject of a "good service to the public" story in *USDA*. *USDA* will be happy to get such stories, provided they are not too long. Always remember that anything over 1½ pages of double-space typewriting is a long story for *USDA*.

Corporate farming

CASON CALLAWAY, of Georgia, who happens to be a millionaire, is chairman of the agricultural panel of the Georgia Agricultural and Industrial Development Board. This State board was established by the Governor, and the creation of 100 corporate farms represents Callaway's current method of discharging his duties as panel chairman. Each farm is financed privately by a separate group of men, however, and the Agricultural and Industrial Development Board sponsors them.

The object of this interesting undertaking—you will find it discussed in *Baron's* for July 30, page 11, in an article by Ross L. Holman—is to find out whether farming can be made to pay off in Georgia in a practical dollar way, for the average farmer on average land of that State. If Georgia land will simply not support a respectable standard of living for Georgia farmers, Callaway says, the sooner they find out about it the better. Through the hundred farms he expects to have an answer to this problem in 3 or 4 years.

Each farm will be operated through a soil-conservation system. That means that each acre will be used according to its individual capability and will be treated in accord with its individual needs. Therefore each farm will have the benefit of modern farm-management needs, economically speaking. The Soil Conservation Service, Gordon Zimmerman tells us, is cooperating with the Georgia extension service and the State experiment station here, the latter two agencies handling the farm-manage-

ment end. The experiment-station account books will be used on each farm to record financial income and outgo.

This is no crackpot venture. The results have an important bearing on the future of agriculture throughout the South. Though the 100 farms are Calloway's idea, he here represents the State government, not himself. It is hoped that even worn-out land can be made to pay dividends from special projects. Watch this experiment.

Soil surveys

EARLY IN World War II, military authorities couldn't locate a satisfactory map for use in working out preliminary plans for the North Africa invasion. They couldn't, that is, until they visited the Department Library. There they found a soil survey map that exactly met their needs. You'd naturally think that an incident of this sort would put the work of the Division of Soil Survey, Bureau of Plant Industry, Soils, and Agricultural Engineering on—well, on the map. It didn't. Nothing ever does. If the atom bomb had been developed in that division, there would have been no problem about keeping it secret.

Not that Dr. Charles E. Kellogg, head of the Division, is worried over this lack of publicity. The demand for the Division's publications has always been greater than the supply; and several hundred of the more than 1,500 soil survey bulletins published are now available only in reference libraries. This work has progressed steadily for half a century and now covers perhaps 50 percent of the U. S. counties. Counties? That may be the real explanation of the scarcity of news items about soil-survey activities. The bulletins cover a single county as a rule and so are of primary importance only to that county. In the aggregate, however, they are highly important to the food production of the country.

These soil survey reports are truly amazing. They describe the soil of the county covered, of course, but they also tell what crops are adapted to it, what yields may be expected, and even what fertilization and other management practices are needed for best results! If you are unfamiliar with the particular county in which you are interested, all you need is a legal description of the land under consideration—township, range, etc.—and the bulletin does the rest! It gives you a sketch of the history of the county, tells something of the climate and vegetation, population, and trans-

portation facilities. It even discusses the availability of markets!

"Basic to all the science of agriculture is an understanding of the soil—how to determine its nature, how to use it wisely, how to make it better." When you start a real study of agriculture, you must start at the beginning, with the soil; and each farmer's problem starts with a need for information about the soils that he has. That's the main purpose of the soil survey bulletins—to supply such information.—JOHN A. FERRALL PISAE.

Brief but important

Claimants Program Coordination Office: At the lusty age of 4 days the Production and Marketing Administration, on August 24, created a new staff office so named to be responsible to the Assistant Administrator for inventory management and to take over the functions and activities previously performed by the Program Liaison Branch, Office of Supply. J. B. Long is Acting Director.

Post-war Federal Finance and Agriculture: Tyler F. Haygood is author of this informative processed publication; ask *Division of Economic Information, Bureau of Agricultural Economics*, for it.

Farmers' Creed: J. P. Guess, field supervisor, Emergency Crop and Feed Loan Office at Columbia, S. C., sends us a copy of this creed which the Governors of South Carolina and Georgia use to give farmers a deeper sense or responsibility towards the soil and their communities. This or a similar creed might prove useful in other States. Address Mr. Guess directly regarding it, at Millen, Ga.

Farm safety: The *USDA*, in cooperation with the National Safety Council, Inc. (20 North Wacker Drive, Chicago 6, Ill.), has produced a 35-mm. single-frame film strip, a farm-safety picture quiz entitled "Do you know?" Order from the council at 40 cents each.

Ralph Shaw: The Department Librarian is back from his war service at the Army Medical Library. Mildred Benton, who so well substituted for him, resumes her duties as chief of the Division of Field Library Service.

New face: The appointment of Stephen C. Hughes as Assistant Administrator of Farm Security Administration, in charge of rural-rehabilitation and farm-ownership programs, was announced August 30. FSA has been authorized to make rural-rehabilitation loans totaling 67 million dollars during the next 12 months, and half of a 50-million-dollar farm-ownership authorization has been earmarked for loans to World War II vets to buy farms. Mr. Hughes is a native of Missouri and a graduate of that State's university. Actually he has served a decade with FSA and its predecessor agencies.

Edson retires: Dr. Howard A. Edson, well-known plant pathologist, retired in August after 30 years of service. He entered the Department in 1910 and worked successfully

on diseases of many crops. From 1924 to 1927 he was in charge of the Office of Cotton, Truck, and Forage Crop Disease Investigations. He was chief examiner of the Civil Service Commission 1927-33; then took charge of the USDA Division of Mycology and Disease Survey, which collects and disseminates information on the occurrence and distribution of American crop-plant diseases. In 1919-20 Dr. Edson was a member of the staff of the Joint Congressional Commission for Reclassification of Salaries.

DDT: Since DDT has now been released to civilians, you may want to see the Bureau of Entomology and Plant Quarantine's 10-page statement on how the new insecticide should and should not be used. Call at the patio center, or ask the Press Service (phone 6114), for 1574-45. Or write the editors.

It's All Yours: This is the name of an attractive and informative booklet issued by the U. S. Department of Agriculture Welfare Association, Inc., September. It tells what the Welfare Association is, how it came into existence, and what activities it carries on. New employees in Washington will find it especially useful. Field employees, where many are grouped in one city, might find in it helpful suggestions for local use. This association operates our cafeterias, lunch-rooms, official dining room, and food carts, and engages also in Red Cross, recreational, and cultural activities. It hired the first registered nurse to aid USDA employees, though the emergency service is now run by the Department. Get the booklet from the association's offices, Rooms 6508-12-16-18, South Building.

Official cars: Remember that Secretary's Memorandum No. 1110, July 14, remains in force. Employees are not authorized to use Government vehicles for other than official work.

PISAE change: Howard Zahniser, head of information for Bureau of Plant Industry, Soils, and Agricultural Engineering, has left to edit the *Living Wilderness*, a magazine published by the Wilderness Society. J. Kendall McClarren, Distribution Control Officer, Department Office of Information, replaces him.

Land and water resource policies: Secretary's Memorandum 1120, August 21, made the Assistant Secretary responsible for the coordination and general supervision of Department policies and activities relating to land and water resources. Intra-agency functions and responsibilities are unchanged, but inter-agency aspects of such functions or operations must now be coordinated and generally supervised by the Assistant Secretary. The personnel of the Office of Water Utilization becomes part of the staff of the Secretary's Office, the Assistant Secretary coordinating and directing its activities under general supervision of the Secretary. The position of Land Use Coordinator and the Office of Water Utilization are abolished, their functions and duties going to the Assistant Secretary.

Look these up: We would like to recommend a couple of articles in recent issues of our esteemed contemporaries. One is *Surplus Medical Equipment for Rural Areas*, by Gus Larson, of the Bureau of Agricultural Economics, in August *Agricultural Situation*. The other discusses grade labeling of canned goods under the somewhat cryptic title, *Seeing is Believing*, by Anne Carter, in *Consumers' Guide* for August.

Rohrbaugh back: Lewis H. Rohrbaugh is again Director of our Graduate School, succeeding Eldon L. Johnson, who has gone to University of Oregon. A former assistant to the Director of Personnel, Rohrbaugh has been on leave of absence with the United Nations Relief and Rehabilitation Administration in Egypt and elsewhere. He ran into Morse Salisbury in Europe and they reheated old times. "Lew" was Director of GS once before, too, you may remember.

Paul Bunyan: Admirers of that legendary hero of the logging camps, Paul Bunyan, will find something of his spirit in *Lumber and Labor*, by Dr. Vernon H. Jensen, a down-to-earth history of life in the lumber industry. Here is an industry which has marched across the continent devouring both forests and men, creating problems in human and economic adjustment in the cut-over regions it has left behind. The book is the first full and scholarly account of labor in a field, which for all its fascination, has been little studied. Get it from the Library.

World farmers: Off the press is *Farmers of the World*, edited by Douglas Enslinger, Bureau of Agricultural Economics, and Irwin T. Sanders, collaborator. A comprehensive book, it brings together new information about the current situation of farmers in many nations of the world and efforts by educators to bring to them modern applications in agriculture and home making. The Library has it.

Federal aid to agriculture since World War I: This is an excellent but concise treatment of the subject by Donald C. Horton and E. Fenton Shepard in *Agricultural History* for April 1945 (vol. 19, no. 2, p. 114). If you want a ready understanding of what the Federal Government has done for agriculture, and why, since World War I, you should not miss it. The authors are in the Bureau of Agricultural Economics.

Suggested reading: What's Happening to the Timber, by Roy A. H. Thompson, *Harper's Magazine* for August, says our timber resources are dwindling, and fast; but the trend can be reversed if real conservation measures are applied. Author is a businessman who has financed many large forest-industry operations.

Bovine bureaucrats: Bureaucratic cows of the Bureau of Dairy Industry at the Agricultural Research Center (Beltsville, Md.) are doing very well. One Holstein recently set a butterfat record of 1,207 pounds, but five others were above the 1,000-pound level. All six were daughters of two sires. This Holstein herd resulted from a long-time breeding program in which progeny-tested sires have been used to eliminate hereditary factors responsible for low production and to build up high production. Butterfat production for the herd now averages 721 pounds, as compared with only 678 for the foundation herd. No special feeding systems are used to force test cows. Their basal ration is alfalfa hay and corn silage, no pasture being provided, as all cows are stabled throughout.

Incidental intelligence: California has 313,000 Federal Government employees; New York State has 297,800. Oh, yes, we almost forgot, the District of Columbia has 256,300. D.C. also has within its borders 45 farms of 1,878 acres. All right, but in 1839 the same District of Columbia produced more rye than "Wiskonsin," more hay than Mississippi,

more tobacco than South Carolina and afore-said "Wiskonsin" combined, and the value of its orchard and market-garden produce was three times that of Florida!

Seaman A. Knapp: Joseph C. Bailey's new book, *Seaman A. Knapp*, schoolmaster of American Agriculture (Columbia Press) is an informative, well-documented, readable account of the life of the remarkable man to whom the South largely owes its successful rice culture, and the Department its equally successful Extension Service.

World forest plan: Forest Service calls attention to the plan presented to the United Nations Interim Commission on Food and Agriculture by that body's technical committee on forestry and primary forest products. It embodies a program of international collaboration to deal with critical problems of the world's wood supply, which has shrunk drastically during the war and now faces heavy post-war demands. (See press release 1613-45.)

Plainville, USA: This book is a radically different study of rural life. The author, who uses the nom de plume of James West to preserve his own and the anonymity of his many real-life subjects, spent more than a year collecting material in a small town in the Middle West. If you want to know what people there think about AAA, FSA, and the rest of our alphabet, read it. (The Department Library has it.) It's psychology, rural economics, and folklore, all mixed up together.

Former editor's book: Archie Robertson, former editor of *USDA*, has a new book out. It is: *Slow Train to Yesterday: A Last Glance at the Local*, published by Houghton Mifflin. Archie loved the railroads and occasionally late at night stray engines still cavort around the floor of his former office in 423 East Wing

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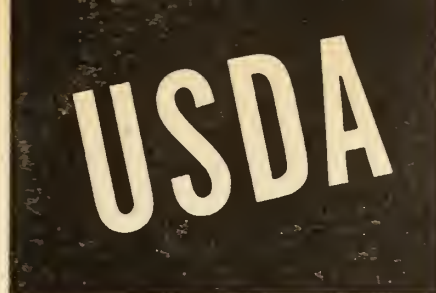
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FOR OCTOBER 15, 1945

Reemployment in USDA

AS OF July 31, over 18,000 men and women had left their jobs in the Department for duty with the armed forces. By the same date, 1,079 had been restored to positions in the Department. With the end of hostilities, veterans are returning in constantly increasing numbers. It is expected that the percentage of returns from this war will be much higher than from World War I. This will be due to more attractive salaries now paid by the Department, the 40-hour week, more liberal retirement benefits, provision for more frequent periodic promotions within grade, more liberal sick and annual leave provisions, and the fact that Department agencies, by one means or another, have kept in touch with their people while away.

The Department's policy on reemployment of veterans was stated in General Departmental Circular No. 53, October 9, 1944. All persons responsible for reemployment of veterans must observe this important provision in the circular: "It is the policy of the Department liberally to apply, in the interest of veterans, the benefits available to them, not inconsistent with the laws and regulations prescribing such benefits." A pamphlet, *What to Do When the Veterans Return to Their Jobs in the Department of Agriculture*, has been prepared for the use of supervisors especially. It discusses veterans' rights and how to see that they get what is due them, and is being distributed through bureau personnel offices.

During the war, several thousand Department employees were transferred to other Federal agencies and to private industry, with reemployment rights. Large numbers of these transfers were authorized under conditions which, in the Department's opinion, did not justify reemployment rights. For example, employees on their own initiative sought transfers at promotions; employees, who

transferred with reemployment rights, refused to move with their agencies to other points in the country; and employees on terminal leave or who were being let out because of reduction in force were given reemployment rights upon transfer to other places in the Government. Many of these transferred employees are applying for reemployment.

Of course, there is no objection to the reemployment of former Department employees who are well qualified for the work to be done. But it must be borne in mind that the Department's primary responsibility is to reemploy veterans and that it owes a debt of gratitude to its employees, both career-service and war-service, who stayed and helped to get its wartime job done. The Department is giving to these people every possible consideration for continued employment, and the regulations and procedures governing reemployment of civilians are being strictly interpreted and applied.

Farm prosperity

AGRICULTURE, as measured by the dollar value of its physical goods, increased from a 49-billion-dollar to a 74-billion-dollar industry during the 5 years ended January 1, 1945, according to the Bureau of Agricultural Economics. During 1944 alone the increase was from 69 to 74 billion dollars. Financial assets such as currency, deposits, and war bonds increased from an estimated 5 billion dollars on January 1, 1940, to 13 billion dollars on January 1, 1944, and nearly 17 billion dollars on January 1, 1945.

Increases in the valuation of physical assets used in agriculture are due mainly to higher prices but, in part, to increased quantities. At the beginning of 1945 the higher prices of physical assets capable of yielding a series of annual incomes—

like land and dairy herds—were mainly the consequences of relatively high and rising farm income. The increase in financial assets is a result of a combination of continued high net farm income and of restrictions on purchases of many goods.

Large-scale general employment will greatly benefit farmers as well as those in commercial and industrial fields, according to BAE's new publication, *Maintenance of Full Employment* (MP 570), second in the new series, *What Peace Can Mean to American Farmers*. (The first bulletin, MP 562, covered the subject, *Post-War Agriculture and Employment*.) High levels of employment, as contrasted with high levels of unemployment, it is said, would bring to farmers (1) substantially larger market outlets for most farm products, (2) greater opportunities for some of their sons and daughters to find nonfarm jobs, and (3) a better chance for themselves to shift to more productive farms or out of agriculture entirely if they want to do so.—

CATHERINE CARMODY, BAE.

Pay-roll savings bonds

DIRECTOR OF PERSONNEL Reid, in a memorandum dated September 12, urges employees to continue to buy savings bonds regularly through pay-roll deductions. He points out that it is the easiest way to save money for homes, education, and emergencies. The Government will need large sums of money to maintain a strong Navy and occupation armies abroad, to demobilize military forces, for hospitalization, unemployment adjustments, pensions, education, training, and rehabilitation of veterans, and to keep a strong merchant marine. We must also continue to fight inflation, Mr. Reid reminds us; there is almost as much danger of widespread inflation now as during wartime.

On October 29 a "Victory Bond Drive" will be launched. Continued purchase of bonds through pay-roll savings at 90 percent participation and 10 percent or more of salaries will help us all to put this drive across. Best of all, it will show that we are backing up our future as United States citizens.

Three more 2-gallon blood donors: O. G. Chandler, Forest Service, Edna E. Starr, Bureau of Agricultural Economics, and John P. Benevento, Commodity Credit Corporation.

Bamboo Garden

DAVID A. BISSET, Bureau of Plant Industry, Soils, and Agricultural Engineering, is in charge of the Barbour Lathrop Plant Introduction Garden about 13 miles outside Savannah, but practically everybody calls it the Bamboo Garden. Here nearly a hundred varieties of bamboo are being tried out, mostly from the temperate zones of China and Japan. Some are capable of growing as far north as Long Island, with serious cold injury only when subzero temperatures occur. The original stand of giant bamboo was bought some years ago at the suggestion of David Fairchild, whose lifelong friend and financial backer, Lathrop, financed the purchase.

It is grossly untrue that you can hear the bamboo grow as it forces its way to the top, and we do mean top. But grow it surely does. A growth of 21 inches in 12 hours has been measured. Even then you may deny the calumny that a newspaper man got caught on top of a shoot and couldn't slide down as fast as it grew up. No such thing. But the new shoots in a forest of this giant bamboo grow in 6 to 8 weeks to an average of 40 feet tall, and it is at least 10 degrees cooler within the forest than outside.

One large stem in an older stand was seen which had grown to a height of 72 feet in less than 2 months, and a more serenely beautiful green than that of this new growth could not be dreamed up. Unfortunately, the surface darkens with age. If this green could be preserved somehow, it would appear more lovely than any plastic. Bamboo stems may live as long as 25 years. The plant blooms rarely, a greenish flower, perhaps once in 50 or 75 years.

The bamboo originally on this land was a partial replanting of that from a nearby estate where the big grass grew too fast. Bamboo is a grass, of course, and there is a variety that rarely exceeds 5 or 6 inches in height and makes the nearest thing possible to an ever-green lawn grass. A number of subtropical species are grown here, but many more are adaptable to temperate zones—plants which will furnish raw material for all the wide variety of bamboo products we imported (or for which we imported bamboo) from food to furniture and excellent paper.

So fascinating is the bamboo that the visitor almost forgets this is an all-round plant-introduction garden. Great numbers of exotic fruit and shade trees, nuts, shrubs, and plants of all sorts are being tried out here. Incidentally, Mr.

Bisset is president of the Savannah USDA Club. He resigned a month or so ago. So they reelected him over his protest just as if they didn't hear it at all. This took place in the Savannah office of the Extension agent for Chatham County, William Nitzchke.

JTA delivers the goods

JOHN THOMAS AHAESY was a junior administrative assistant in the Purchase and Supply Office of the Agricultural Research Center at Beltsville, Md., when he was taken into the service. He was a chief storekeeper of a Naval Construction Battalion, building an airstrip on Stirling, one of the Treasury Islands in the British Northern Solomons group, when he became a leading figure in one of the notable supply sagas of the Solomons campaign. The job started out as a fighter strip, but orders came suddenly to make it a bomber strip instead. More axes, more cross saws, were needed at once for cutting through the jungle log jam. Shoes, too, were wearing out unexpectedly fast because of rot resulting from the seeping dampness in the virgin jungle where the men worked. "More axes! More saws! More shoes!" came the order. "I don't care where you get them—or how—but get them!" What a familiar ring such words have to the ears of purchase and supply men. Theirs not to reason why, theirs but to make a try!

Ahaesy climbed on a pile of mail bags in the rear of a plane carrying wounded men to hospitals, and was on his way. At Guadalcanal he dropped off, moved about until he located an Army depot, and talked those in charge out of a supply of axes, saws, and shoes—and, for good measure, some 2,000 pairs of coveralls. Now for transportation. A Marine parachute service that he finally located in his hitchhiking had chutes but no planes. He took the chutes. Then he got a break; he saw several new Army transport planes landing. He was on the captain's neck even before the flies and mosquitoes! By now he was telling his story so effectively that it brought tears to the eyes of his listeners. Sure, he could have the planes; it would be a good test run for them. But he'd have to bring the stuff to them—packed ready to go. Well, Ahaesy had the Army and Marines at work; there was still the Navy.

At a Naval Public Works office he obtained the trucks and a detail of men, and the supplies were soon on their way. But he couldn't send a message to Stirling

to notify the men that the stuff was coming. The Japs were less than 20 miles away and were likely to intercept the message and shoot down the transports. So the battalion supply officer arrived at Guadalcanal the fourth day to see how Ahaesy was getting along—and discovered that the stuff had already been shipped! In fact, it was just about then falling on Ahaesy's amazed pals at Stirling in colorful parachutes from the unannounced planes—all supplies in excellent condition, thanks to the fine co-operation of the Army, Navy, and Marine Corps. "Shucks," says Ahaesy modestly, "that's the way a good purchase and supply man works, in or out of the service."—JOHN A. FERRALL, PISAE.

Rural health again

AN INCREASE in rural public clinics is favored by more than four-fifths of the farmers interviewed in a recent study made by the Bureau of Agricultural Economics. Three-fourths said they would like to subscribe to some flat-rate prepayment plan for themselves and their families to cover the costs of doctors, nurses, and hospitals.

The availability at low cost of large quantities of surplus hospital and medical equipment left over from the war should make it less difficult to realize these desires. Surgical instruments, beds and bedding, dishes, X-ray equipment, incubators, diagnostic and sterilizing equipment, furniture, mobile medical and dental units, operating tables, and other equipment will be obtainable.

These supplies will be useful to already established community hospitals and health centers, as well as to State, county, and city health departments and schools that give periodic health examinations to school children or that may want to bring medical service to isolated farm areas. Services such as fire and police departments in small communities could use ambulances, oxygen tents, and water-purification devices. These communities also could arrange to obtain diagnostic equipment for the cooperative use of all their doctors, since most country physicians cannot afford to buy for themselves such modern equipment as X-ray machines and electrocardiograph machines.

Extent of needs is the basis on which surplus hospital and medical material will be allocated to communities and groups. The priority arrangement will probably cover the following three classes of communities or groups: (1)

Those with no facilities at the present time, (2) those with inadequate facilities to meet present needs; and (3) those needing replacements to maintain or improve present services. The State health department would certify needs and determine priorities.

AIC women scientists

A NUMBER of readers have asked us to tell something about the activities of women scientists and not to stick always to the more intimidated male sex. In *USDA* for August 6 we told you about Dr. Majel (yes, that's right) M. MacMasters, of the Bureau of Agricultural and Industrial Chemistry. She is not the Bureau's only accomplished woman scientist, however. Here are brief notes on a few more of these ladies, and—just for your information—they are attractive to look at, too.

Mildred M. Boggs supervises panels of tasters, who obtain data for measuring the palatability of experimental samples of foods, at the Western Regional Research Laboratory, Albany, Calif. Her work involves selection of tasters, preparation of food samples, and statistical analysis and interpretation of the results. Her work on dehydrated eggs has contributed greatly to the laboratory's wartime research on that commodity. Miss Boggs does similar work on other dehydrated and on frozen foods. She was trained at the University of Wisconsin, Columbia, and Cornell.

At the Southern Regional Research Laboratory, New Orleans, Ruby K. Worner, textile technologist, supervises tests of finishing treatments on cotton fabrics. She is in charge of a group of young women who majored in science at college and who are now applying their training to technical advances in cotton manufacture. Dr. Worner, who is particularly interested in the standardization and improvement of laboratory methods for determining the serviceability of textiles, received her Ph. D. from the University of Chicago.

Microscopist and chemists

Also at the southern lab is Mary L. Rollins, fiber microscopist and one of a group that conducts research to find new and improved uses for cotton. Miss Rollins has made original microscopic investigations on the structure of cotton fiber, on rotproofing and flameproofing of cotton fabrics, and on locating rubber in the goldenrod leaf. A graduate of Newcomb College, she also studied at the Marine

Biological Laboratory at Woods Hole, Mass., and at George Washington University, where she received an M. A.

Charlotte H. Boatner, of the southern lab, is a research chemist. She and her coworkers distinguished themselves by discovering three of the four recognized pigments of cottonseed. These three pigments—purple, blue, and orange in color—were named gossypurpurin, gossycacerulin, and gossyfulvin, respectively. During Dr. Boatner's research on allergens, she developed a practical process for preparing purified allergenic extracts. She holds a B. Sc. from Tulane University, a Ph. D. from the University of Michigan, and a diploma from the Université de Paris, where she was a fellow of the French Government.

At the Northern Regional Research Laboratory, Peoria, Ill., Allene Jeanes, a chemist, conducts research on the chemical structure of starch. Dr. Jeanes has developed methods for preparing the acetates of starch and related polysaccharides and has studied the products of chemical degradation of these acetates. Through these studies, progress is being made toward the isolation, as well as the synthesis, of an anomalous grouping in the starch molecule—problems which have long challenged starch chemists. Before coming to this lab, Dr. Jeanes worked at the National Institute of Health and the National Bureau of Standards.

Aid for sick bees

PROBABLY it never occurred to you to contemplate what it would mean to be a sick honeybee. Yet honeybees are not always going around socking their beezers into flowers collecting honey to make some apiarist a living. Bees get ill, too, just like horses and human beings. In fact honeybees have rather a hard time of it, once you investigate their problems.

Not only do they have their own peculiar ailments and abnormalities, but starvation and poor wintering conditions kill them off in many parts of the U. S. Parasites invade their homes and cause serious losses. Infant bees suffer and die, too, without benefit of pediatricians. Fortunately, all these are strictly bee diseases which do not transmit to animals or human beings.

American foulbrood is one of the most fatal of all bee diseases. However, Department entomologists, working with State agricultural experiment stations, have done something about that. They have made excellent progress in producing, through breeding and selection, a

strain of bees resistant to the disease. A limited number of resistant queens has already been distributed in the U. S. Resistance is still being improved by genetic methods.

Unfortunately resistance or immunity to one bee disease does not protect the insect from others. Thus, strains resistant to American foulbrood appear to be highly susceptible to the European type of the disease.

Compare

THE DOLOROUS remarks to which L. F. Easterbrook gave vent when writing on *Health on the Farm* (in Britain), in *New Statesman* and *Nation* for June 30, invite comparison of American and British agriculture, postwar. Fine work by the personnel of our Bureaus of Animal Industry and of Dairy Industry have very largely delivered us from some of the menaces Easterbrook mentions as common in Britain today.

According to him, not less than 40 percent of British dairy herds would react unfavorably to a tuberculin test and probably 1 in every 100 is giving tubercular milk. Mastitis, contagious abortion, sterility, and Johne's disease also rage on the British Isles. Veterinary experts estimate that they rob the British of 200 million gallons of milk annually, representing an annual loss of some 80 or 90 million dollars to dairy farmers.

Then there is the problem of low-yielding cows. The Ministry of Agriculture is taking steps to improve the standard of dairy bulls, bringing into the herds bulls with more milk in their ancestry. Average production in Britain now runs only about 500 gallons per cow, and the best-looking bull in the world may lower the milk yield further, if he does not come of a good milking strain. (Our Department dairy scientists know how to locate such bulls and utilize them efficiently.)

Easterbrook remarks that production of a thousand gallons of milk a year means the production of six times the cow's own weight in milk. Her constitution and conformation must be such that she can stand that strain. He suggests 750 rather than 1,500 gallons of milk per cow as the proper objective, so as not to discontent and burden the animals too much. Finally he suggests a panel system for veterinarians comparable to the British panel system for doctors for humans.

Without growing too complacent, we

can feel well satisfied about the work of our Department scientists when we read such articles. Our dairy-herd-improvement cows now give about 970 gallons of milk annually, as compared with the low United States over-all figure of only about 550. Privately, we think giving 1,500 gallons would explode a sedate and genteel animal like a cow. But USDA's Beltsville Holstein herd of 57 cows averages 2,170 gallons per cow per year!

New mold-storing method

BY APPLYING to the preservation of molds, methods previously developed for keeping bacteria alive a long while, agricultural scientists have greatly improved the storage of these industrially important micro-organisms. Some of the molds that are the bases for the present commercial production of penicillin have been satisfactorily stored for a number of years under this new method, along with 3,800 strains of other molds, yeasts, and bacteria that make up the working collection of these organisms at the Bureau of Agricultural and Industrial Chemistry's Northern Regional Laboratory at Peoria, Ill. Dr. O. E. May, Chief of that Bureau, says that this is among the largest and finest collections of molds in the world.

In addition to the molds that produce penicillin, citric acid, itaconic acid, and other valuable products, the collection includes the mold used in the production of calcium gluconate, a substance used extensively to raise the calcium level in the blood of humans and farm animals. Maintained to help chemists in their search for new and wider industrial outlets for farm products, this collection has been fully as important in saving human lives as it has in the industrial field. There seems to be no end to what these little microbes can do under proper conditions.

The method of storage, known as the lyophil process, was adapted to the preservation of molds by Kenneth B. Raper, L. J. Wickerham, and Dorothy Alexander, and is both simple and effective. Frozen, dried, and then sealed in evacuated tubes, the spores of these lively little fermenting agents can now be stored with a minimum danger of loss. Lyophil preparations of the entire collection can be stored in a home-model quick freezer with a capacity of five or more cubic feet. In a dessicated state the spores appear to be asleep, but to restore their activity it is necessary only to break the tube and provide ideal growing conditions.

Science and industry have long known certain dangers associated with these lower forms of life. They are subject to disease, accidental destruction, and contamination. Baking, cheesemaking, brewing, and winemaking have suffered severely at times from the loss of selected strains of organisms. The lyophil process promises to enable an industry to safeguard indefinitely a supply of the basic ferments required in its business.—FRANK TEUTON, AIC.

Brief but important

Keep faith with those who gave. This is the slogan for the 1946 campaign of the Community War Fund.

Bulletin experiment: An employee comments: "The article about the bulletin experiment (August 20 *USDA*) is interesting, but the last paragraph is wrong. What is the logical conclusion? It is to write directly and simply. Do not try to make literature out of information. I had an interesting experience some time ago with reference to a bulletin on 'What Makes the Price of Hogs.' The analyst wrote a draft and submitted it for publication. The information man re-drafted it for public consumption. We submitted the two drafts to a wise old farm-management man from one of the State colleges. He, too, could understand better the writing of the specialist—and that is what was published."

Co-ops: The processed publication issued during July by USDA's Interbureau Committee on Postwar Programs, entitled "Agricultural Cooperatives in the Postwar Period," is a concise and useful statement. After considering the status of agricultural cooperation today and its postwar possibilities, the publication takes up the status and possibilities of cooperative activity in a wide variety of commodity and other fields. Suggestions are then made for the accurate determination of cooperative possibilities, and the publication ends with a discussion of available information and assistance which may be procured from USDA agencies and from the various State land-grant colleges.

Social Impact of Science: If interested in this subject, by all means look up the select bibliography, with a section on atomic power, issued under this general title by the Senate Committee on Military Affairs, Subcommittee on War Mobilization, Monograph No. 3, August. Get copies from the Superintendent of Documents at 15 cents each.

Tips to bakers: Definite economy steps have been recommended for the baking industry by the Bureau of Agricultural Economics, as the result of a recent study covering marketing margins and costs of bakery products. These economies include prohibition of stale-bread returns to bakers, elimination of the practice of furnishing bread racks to retailers, and reductions in deliveries, in the number of calls paid on retailers by bakery salesmen, and in packaging costs. Distribution costs for bakery products are higher than for most other manufactured food products, largely

because highly competitive selling practices entail avoidable cost. Originally profitable when tried by a few firms, these practices as now generally adopted represent only added costs saddled upon all competitors.

Forest fires: Forest Service is happy to report that forest fires destroyed only half the acreage last year they did the year before. Yet 16,549,312 acres were burned in 1944! The number of fires as well as fire damage declined, but forest fires cost the Nation \$25,775,312 in 1944. Moreover, there were 131,229 forest fires. One-half these fires occurred in areas for which protection has not yet been established. Today there are 513,572,000 acres of forest under protection and 129,928,000 lacking it. From the weather standpoint, 1944 was an average fire year. Increased popular appreciation of forests, special anti-forest-fire campaigns, improved fire-fighting techniques, increased Federal and State funds, effective work by fire-control organizations, and fewer campers and hunters in the woods helped make this better-than-usual record.

Readability: Rudolph Flesch, expert on readability and tests thereof, writes on the subject, *How Copy Writers Can Use Readability Tests*, in *Printer's Ink* for August 31. He says, among other things: "It is possible to measure whether a given piece of writing will fit the reader; or, the other way around, to use the formula to write tailor-made copy. Various organizations have already used this formula for just that purpose . . . the Department of Agriculture Extension Service has related the style of its publications to the average education of farmers in different States." The measure used is either the last school grade completed or the type of magazine most read and best understood by the persons to be reached with a message.

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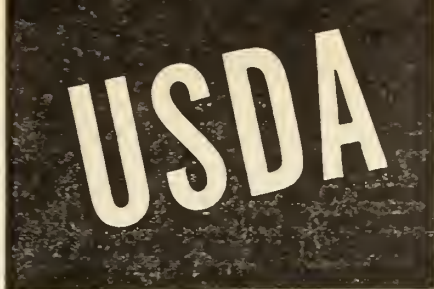
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FOR OCTOBER 29, 1945

Kellogg in Russia

AS DR. CHARLES E. KELLOGG, Chief of the Division of Soil Survey, Bureau of Plant Industry, Soils, and Agricultural Engineering, left a train at Luban, Russia, for a bit of exercise during a stop, he was approached by a woman who tendered him a bouquet of wild flowers. He thought it was a case of mistaken identity. It wasn't. She and her neighbors knew about the invitation the Russians had extended to him and to more than a hundred of their fellow scientists of the United Nations to spend June 15-29 at Moscow and Leningrad as their guests at the Jubilee Sessions of the Academy of Science of the U. S. S. R., commemorating the Academy's 220th anniversary. The invitation came to Dr. Kellogg personally, and he was attending as a private citizen. The Russian wanted, she explained, to give the flowers to an American as token of her thanks for America's aid in the war.

It was a heart-warming incident, especially since Dr. Kellogg had been thinking on the trip out that science might hold the key to a better understanding among nations. The language of science is international, and he believed that mutual confidence born of scientific intercourse might help to pave the way for mutual respect in other fields. Here was direct evidence that the Russian people, as well as the Russian scientists, were eager to meet us more than halfway.

The remainder of his visit increased the optimism this incident aroused. The unusual facilities provided, including air journeys by daylight, enabled the visitors to obtain a comprehensive view of Russia—of what it is and what it is doing, agriculturally and otherwise. Naturally, as a soil scientist, Dr. Kellogg was greatly interested in the various soil studies under way, particularly since modern soil science of this century was born in Russia, beginning in the latter part of the

nineteenth century, with Dokuchaiev's work, which has had a strong influence on soil science in this country.

Perhaps the thing that impressed him most was the faith of the Russian people in scientific research. It isn't necessary to "sell" them the idea. Through the Academy that was celebrating this jubilee, science has actually been built into the Soviet Union and made an integral part of its social structure. Dr. Kellogg reports that the Russians take it for granted that expanding science will make it possible for them to have more and have it easier. Even during the critical days of the war, young scientists were kept at their studies in the firm belief that they were doing as much for the welfare of their country as were the soldiers in the field. The educational system, in fact, reaches out for all who show gifts along scientific lines. This not only brings to the universities the best student material; it also screens out those who have little or no aptitude for scientific studies and who would merely waste equipment and teachers' energies.—JOHN A. FERRALL, PISAE.

Reduction in force

IN ITS recent revision of Departmental Circular 510 effective November 1, the Civil Service Commission prescribes important changes in some fundamental principles governing reduction in force.

Heretofore, in computation of credits to determine which employees are to be retained, the efficiency rating was the most important factor. Length of service was secondary. Under the old regulations, an employee was credited with 1 point for each year of service. In addition, he received 96 points for an "Excellent" rating, 88 points for a "Very Good" rating, and 80 points for a "Good" rating. Now, employees continue to receive 1 point for each year of service and an additional 5 points for an "Excellent"

rating. No credit, however, is given for "Good" or "Very Good" ratings. This change emphasizes length of service to the extent that, in most cases, it will determine the order of reduction in force.

Another important change gives added significance to veterans' preference. Under the old regulation, a permanent employee with veterans' preference who was about to be separated was treated exactly the same as one without veterans' preference. He was entitled to reassignment at the same geographical location to any position for which he was qualified, but *only if* the reassignment did not displace a permanent employee. Now, the veteran has this right of reassignment even though it displaces a permanent employee without veterans' preference.

Likewise, the war service appointee entitled to veterans' preference acquires the right of reassignment which he did not enjoy under the old regulations. If such an employee is reached for separation, he must be placed in another position if one exists at the same geographical headquarters, *if* he is qualified to fill it, and *if* the occupant is other than a career employee and does not have veterans' preference.

The revised circular contains several other minor changes which do not seriously affect current procedures used in reducing personnel.

Fairfax County, Va.

SINCE the editor lives in Fairfax County, Va., himself, he decided to call on the local county agent at Fairfax Courthouse. It rapidly appeared that George Washington and Lord Fairfax would never recognize the old place now. The county is rapidly going residential. Agriculture is on the way out, through no fault of the county agent, but because the metropolitan district of Washington, having already oozed over Arlington County, is now rapidly engulfing Fairfax. It's the same tale everywhere, farms being split up into lots for homes.

The county agent and the agricultural conservation people have been crowded out of the courthouse over in a white shanty nearby, though the home demonstration agent still maintains a tenuous hold on a small room in the courthouse. The village is placid, with the usual lawyer's offices and goings-on of a county seat. There are only about 300 farm operators left in the county. (Arlington County has only two farms left.)

Labor in Fairfax is at a premium. If it weren't for a prisoner-of-war camp 2 miles away, they don't know what they'd do for farm labor. There are 200 POW's, of whom 25 are assigned to an adjoining county, and about 25 are judged sick every day (many were wounded and are not in good health). The remainder work on farms daily. They are in great demand—250 could have been used easily—and the agent's office is besieged by calls about them. They are paid an agreed-upon rate of 43 cents an hour. Other farm labor, if it existed, would get 90 cents or a dollar, but there really isn't any other. The POW's are tractable and work well.

County Agent Greene is in and out of the office, rarely off all day like agents in big counties with many farms. He is young, alert, and exudes an air of competence. USDA gets to the office regularly; and is read and appreciated. A final word should be said for the smooth efficiency of county agent's secretaries; this one, like all her tribe, was a tower of strength.

What Mrs. Roosevelt said

MRS. ELEANOR ROOSEVELT was quoted not long since in certain newspapers as warning working girls not to enter the Government service because it was tedious, routinized, and offered no chance for advancement. Thinking she might be misquoted, we wrote to her, and she had been.

Actually, she says, she had been addressing a group of World War II widows who had just listened to a man who had practically told them that, if they went into civil service, life would be easy, complete security would be theirs, and they would avoid wear and tear. Naturally she thought this was a foolish doctrine, because run-of-the-mill workers have it about the same everywhere, in Government or in some huge private corporation. There is routine and boredom.

So Mrs. Roosevelt suggested that if the ladies wanted adventure, perhaps they could find more of it in work outside the Government. She does not believe that civil service work would lead most of her hearers very far. On the other hand, she realizes that when women go into Government work with specialized career training, it is an entirely different matter. For she knows many women in our Department and in other Government agencies who have interesting and valuable careers. That, however, just doesn't happen to have been what she was talking about when misquoted.

Plant nutrition pioneer

THE man who discovered that the spraying of exceedingly small amounts of soluble iron prevents or cures a plant disease called chlorosis retired from the Department not long ago. He was Philip L. Gile, senior chemist in soil investigations from 1927 until retirement. The spraying of pineapples became standard Hawaiian practice on extensive areas not previously suitable for profitable production because of chlorosis—all due to Gile's research.

A native of Massachusetts and a graduate of Harvard, Gile worked at the Missouri Agricultural Experiment Station and the station in Puerto Rico, in his earlier years. He was chief of the Division of Soil Chemistry in the old Bureau of Chemistry and Soils from 1921 until 1927, after passing 3 years in private employment.

Jointly or alone he published 42 scientific papers as a result of his Department researches, 15 of these having appeared in the Journal of Agricultural Research. In Puerto Rico he worked with chlorosis of rice, pineapple, sugarcane, and other plants. His early contributions—always concise and well written, like every paper he prepared—cited the depressing effects of excessive soil calcium carbonate on the availability of iron in plant nutrition.

This was fundamental work leading to a quite complete understanding of the nature of this chlorosis, and the development of a preventive and cure. Gile worked on other phases of plant nutrition, the absorption and toxicity of soil selenium being one. Standard texts on plant physiology frequently cite his work, which has been largely pioneering in nature. The future superstructure of scientific truth is later built upon the foundations placed by such careful and ingenious originators as Gile.

John Scott medal

JOHN SCOTT, an Edinburgh chemist, in 1816 bequeathed the sum of \$4,000 to the city of Philadelphia, the income to be "distributed among ingenious men and women who make useful inventions." So far 88 awards have been made for chemical, medical, and other scientific inventions that have promoted the comfort, welfare, and happiness of mankind. Mme. Marie Curie, Orville Wright, Thomas A. Edison, and Sir Alexander Fleming have been among the recipients.

On September 20 new ground was broken when the medal was awarded for

an invention relating to insect control. A copper medal and a premium of \$1,000 then went to Lyle D. Goodhue, chemist in the Bureau of Entomology and Plant Quarantine, and William N. Sullivan, former entomologist of the same bureau but now a captain in the Army, in recognition of their work in developing insecticidal aerosols.

EPQ began research on better methods of applying insecticides long before the war. The liquefied gas aerosol—whence the insecticide, dissolved in a liquefied gas under pressure, disperses in the form of a fine dust or fog—has proved very valuable in protecting Allied troops from annoying insect pests. It thus reduced the incidence of insect-borne diseases. By the close of the war over 35 million aerosol bombs had been supplied to the armed forces, and some department stores are already selling the excess to civilians.

Warburton retires

CLYDE W. WARBURTON, Deputy Governor of the Farm Credit Administration, recently ended a varied career of 40 years in USDA. Reared on a farm near Independence, Iowa, and graduated from Iowa State in 1902, he entered the Department's Office of Farm Management as an agronomist under W. J. Spillman the following year. Except for the 1911-12 period, when he was engaged in private editorial work, his service has been continuous.

In 1904-06 he supervised Texas demonstration farms for the Office of Farm Management. For some years, beginning 1907, he was in charge of oat investigations in the Bureau of Plant Industry, and was responsible for the development and establishment of several superior selections. In 1918 he represented the Department on a committee which arranged to purchase, clean, and resell to grain dealers and others a million dollars worth of oats and barley, to meet emergency conditions in Montana and North Dakota.

On several occasions he was detailed to administer Federal seed-grain loans in various States. One of the first official acts of Secretary Henry C. Wallace, in March 1921, was to place him in charge of the field organization to make loans to farmers in drought-stricken areas. In 1920 he took charge of cereal agronomy investigations and in 1923 Secretary Wallace appointed him Director of the Extension Service, a position he held for 17 years.

He made a capable and effective director, greatly extending the work of the

Service. Mr. Wallace commented on his agreeable and effective personality, enabling him to gain the warm support and highly effective effort of those whose work he supervised," and also upon his marked administrative ability. He became FCA Deputy Governor in January 1940 and has since headed its Washington office. From 1915 until 1921 he was editor of the Journal of the American Society of Agronomy, and he was president of this society in 1925. He will continue to make his home in Washington.

Who's boss on the farm?

THE Michigan Agricultural Experiment Station has been poking around 382 representative village and farm homes in that State to find out who's boss on the farm—or is it democracy! It turns out to be a democracy as far as Pop and Mom are concerned, but is a little like a two-headed monarchy when it comes to relationships between parents and children. It's nice to know that Mom is now as good as Pop (and probably a dog-gone sight better) in rural regions, but the report admonishes: "We still have a long way to go before the family is a truly democratic group."

Wives share authority with husbands fully in making practically all decisions, except those regarding investments, and Pop insists on his right to lose the family's savings unassisted, though some wives said they have a voice even here. Children help make decisions regarding plans for family recreation and vacations, rarely (1 percent) share in control of family funds, occasionally receive allowances, usually get money "when they need it," often earn the money, or part of it.

When it comes to work-sharing, there is less democracy among the heads of the family than in sharing the money. Housework is generally left to the housewife, though in a fourth of the homes husband and wife plan together for help, and a third of the mothers who let the children help also let them share in the work-planning. Mothers in higher-income homes plan with their children more than do those in low-income homes, and fewer children in farm than in village homes, and also in low-income homes, receive regular allowances.

Class in Michigan rural democracy dismissed!

Want a good vacation? Personnel memo P-539, issued August 25, removed wartime restrictions which limited leave of absence for vacations.

Bullfrog chestnut

SURE AS shooting, the other day the old bullfrog chestnut turned up in a Washington daily paper. It may turn up in your locality, too, so perhaps you would like the facts to back you in saying it isn't so. The paper was discussing a bill introduced in the House to reduce Government printing costs and to curtail its publications. The item began:

Future generations may be denied the enlightenment of Government bulletins such as the celebrated "Love Life of the Bullfrog," issued some years ago by the Department of Agriculture.

What are the facts? They will be found on pages 163-164 of *These National Taxeaters*, a book by the editor of *USDA*. As this book appeared in 1934, the facts have been available over a decade. The bullfrog chestnut got its start in a speech made by the late Senator Pat Harrison on January 6, 1932. Therein 24 publications said to have been issued by the Department of Agriculture were cited as ridiculous or worthless or both. Of these, 7 were *USDA* publications; 3 were publications from other executive departments; the remainder were not Government publications at all. One cited for *USDA* was called "Love Adventures of the American Bullfrog."

Further facts: In 1921 there was printed for the Bureau of Fisheries, Department of Commerce, the Report of the United States Commissioner of Fisheries for the Fiscal Year 1919, with appendixes. Appendix No. VI was a 44-page article entitled "Frogs: Their Natural History and Utilization." It was by A. H. Wright of Cornell University. This professional, technical paper was apparently included in the report because of its scientific interest and commercial importance.

But the *USDA* had nothing at all to do with it and its bullfrog-love-life publication is a folk myth or a pipe dream! When you hear about it, say it isn't so.

Rural-school lacks

RECENTLY Department economists asked farmers in different parts of the country what rural-school improvements they most wanted. More than two-thirds of those interviewed favored further consolidation, because this would provide improved educational advantages and more school-community services such as busses, libraries, equipment-repair shops, and canning centers. Where consolidation has gone furthest, people now take it for granted—though some of the

old-timers still look back nostalgically upon days when the little local school was the community center.

The subject of consolidation is still most debated where one-room schools exist, particularly in the Midwest and Northern Plains. The exception is among Negroes of the rural South, who still usually have one-room schools in localities where white schools have been consolidated. But Negro farmers there almost unanimously favor consolidation as a means of getting more high schools and busses.

Two farmers out of three want school libraries to serve adults as well as pupils. Four out of five favor the serving of hot school lunches. Even more favor the lunches in areas where surplus commodities are distributed in largest quantities. This was particularly true of the South. These also are the places where hot lunches are most needed.

Two farmers out of three favor the maintenance of school shops for the repair of farm machinery. This idea is most popular in the South where the lighter types of farm machinery locally used could easily be so serviced. Half of the farmers interviewed throughout the country desired school community canneries for the convenience of their families, and four-fifths of them wanted such canneries continued in counties where they already existed.

Food for foreigners

ON Share the Food Day, September 18, the Secretary spoke by radio on food for foreign relief. He said that during the lifetime of the lend-lease program, March 1941 to July 1945, we sent about 15 million tons of food abroad. In 1944 the quantities we sent, however, amounted to 7 percent of our total production. Through Army facilities we also distributed 2,830,000 tons of food, through June 1945.

The reason for this is obvious. Continental Europe, exclusive of the U. S. S. R., will be short by about 18 million tons of having sufficient food this year, to maintain rations only moderately above wartime levels in liberated countries and to prevent widespread disease and unrest among urban populations in conquered areas. Food production there and in North Africa is 25 percent below prewar.

The entire world is short of food. World farm food production for 1945-46 will be 3 percent below prewar averages, in calories. Allow for net increases in population during the war and that

means a 10 percent lower output per capita. Carry-over stocks of major foods have been sharply reduced. The food outlook in the Far East is serious, though less so than in Europe.

Surplus-producing countries like Canada and the U. S., which substantially increased food production during the war, are best able to make up this deficit. North American food production is a third higher this year than prewar. South American production will probably exceed that of last year, which was reduced by drought. New Zealand and Australia are rationing meats and dairy products and Canada is rationing meats to have more for export. Denmark and Sweden are giving aid.

We have supplies of canned, fresh, and frozen meats, mostly of the lower grades, cheaper types of canned fish, dried fruits, canned and powdered milk, eggs, cheese, potatoes, some dry beans and peas, rice, some corn, and wheat that we can easily spare for use abroad. We should still have ample supplies of these and other commodities for domestic use. Except for sugar, fats and oils, rice, and dry beans and peas, our supplies are more than ample, and even those of the foods mentioned will improve. As the Secretary said:

"If we all work together and do our part, we can help relieve the suffering of thousands of our friends abroad, and by so doing we can make a great contribution to the building of lasting peace."

The 28-hour law

PERHAPS you've glimpsed animals crowded together in apparent discomfort in a passing railroad car and said (or thought), "There ought to be a law." To keep livestock closely confined for long periods of time seems inhumane. Well, there is a law affecting animals in interstate transit—the 28-hour law, passed by Congress in 1873, and replaced by the present statute in 1906.

The Production and Marketing Administration administers this law. Under it, livestock in interstate transit may not be confined in cars, boats, or vessels for more than 28 consecutive hours without being unloaded into properly equipped pens for rest, water, and feed. However, this period may be extended to 36 hours if the owner desires. For longer periods, carriers must pay a penalty of \$100 to \$500, unless a storm or some unanticipated accident is the cause of delayed unloading.

Some railroads maintain feeding stations for their four-footed passengers,

or they may make arrangements with private stockyards for use of their facilities. Proper care of animals during transportation is important not only to the animals but to the owners and the public. Animals lose weight and become less desirable for market when allowed to go too long without proper care. This neglect may even mean the loss of valuable livestock and meat.

Provisions of the law always have been liberally interpreted, particularly during the past few years when overburdened carriers were operating under many handicaps. However, violations seem to be mounting. Apparent violations of the law by railroads totaled 2,181 during the fiscal year 1945. Investigation has been completed in 1,175 cases and 651 cases have been reported for prosecution. During the past year penalties imposed amounted to \$66,000. Several cases involving violation of the 28-hour law have gone to the Supreme Court.—GRACE E. M. WAITE, PMA.

Brief but important

Farm and Home Hour: As many of you are by now aware, the National Farm and Home Hour went back on the air in a new series September 15. It is heard over a coast-to-coast network of approximately 40 NBC stations. Secretary Anderson was the first guest speaker. This program, broadcast continuously for 17 years, was first heard over the network in October 1928. The program is now sponsored by Allis-Chalmers.

FSA medical co-op in Taos: There is a two-part article on the FSA-sponsored Taos County (N. Mex.) Cooperative Health Association, in Survey Graphic for September. You might want to read it. Begin on page 372, Better Health for Country Folks, and read I: In a Georgia Cotton County, by Katherine Glover; then II: In the Mountains of New Mexico, by the editor of USDA.

A good story, but— The story that wheat or other grains removed from ancient tombs will produce crops if planted is a hardy, all but indestructible, perennial. It's a good story, too, except there isn't a grain of truth in it. Grain removed from vases in tombs is carbonized from age and exposure and too dead even for K rations. You could no more get a crop from it than you could by planting the mummy in whose tomb it was found.

Hollis on efficiency rating board: Richard A. Hollis, Office of Information, is the employee member elected to the Department Board of Review on Efficiency Ratings for the 1946 fiscal year. Tyler F. Haygood, Bureau of Agricultural Economics, is alternate employee member. Henry F. Shepherd, Office of Personnel, continues to serve as general Department representative in proceedings before the board.

Subsistence homesteads: The editor of USDA has a limited number of reprints of his article, The Record of Subsistence Homesteads, which appeared in the July 1945 American Journal of Economics and Sociology.

Foreign relations: Secretary's Memorandum 1099, Revision 2, September 18, announces the appointment of a Department Committee on Foreign Relations to advise the Secretary on matters affecting agricultural programs and policies within the scope of the President's Executive Committee on Economic Foreign Policy, and to recommend to him the Department's position with respect to various questions in this field. L. A. Wheeler, Director of the Office of Foreign Agricultural Relations, is chairman.

Office of Information: First look up the notation on Keith Himebaugh's fat grass-fed steer in Printer's Ink for September 28 (p. 12). The plaintive poetic photograph accompanying the note is worth the price of admission . . . Joe Tonkin has come over here to issue the weekly letter to radio farm editors . . . Ken Gapen came in from the West Coast to pinch hit in radio for about six weeks. John Baker takes over as assistant director in charge of radio; he was in radio before; has been in War Relocation and the Marines since. Wallace Kadderly, former chief of Radio Service, is now farm program director at Station KGW, Portland, Oreg. . . . Ernie Moore's successor as assistant director is Donald J. Lehman, formerly of Knickerbocker Press, United Press, Ayer's advertising agency, and aide to the New York milk market administrator . . . Duke DuMars is now chief of the Division of Special Reports.

World Food Situation in 1945-46: This is the title of a comprehensive and remarkably informative processed document which issued from our Office of Foreign Agricultural Relations on October 1. It was a truly stupendous job to produce this report of 79 pages which covers every region, every country, and world supplies of all major food products. Those who worked on this job deserve sincere congratulations.

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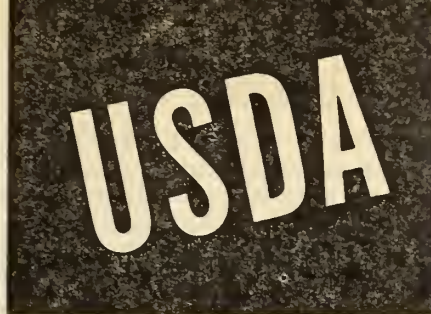
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C. E. RANDALL, *Division of Information and Education, FS.*

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FOR NOVEMBER 12, 1945

Organized research or—

PERFECTION of the atomic bomb touched off a rather considerable controversy about the organization of scientific research. Said those who favored greater organization: If you appropriate sufficient money, organize scientific research workers into teams of experts, provide competent direction and over-all planning, science can solve just about any problem there is. The quick development of penicillin and of DDT under the spur of war incentive also might have been used as examples, and both owed much to USDA scientists.

Some of the controversialists used the cancer problem as an example. Whereas 2 billion dollars, a closely organized team of the Nation's finest scientists, entire new cities, and the services of 125,000 workers were cheap (and effective) for producing the explosive release of atomic energy under controlled conditions, cancer, a terrific scourge of the human race, remains a riddle. Why? ask these protagonists. Because the total endowed investment in cancer research was only 5 million dollars (until August 1945, when 4 million more became available), and because such research is, as a whole, ill organized. Creation of the National Cancer Institute itself cost but \$750,000 with \$700,000 a year to run it.

Three or four years ago Henri Laugier, former professor of science at the Sorbonne, declared that total freedom and unbridled individualism were bad for science at peace. He told how each worker had picked his own field at whim over in France before the war, and was free to devote his entire professional life to it, whether it yielded anything or not. His choice was arbitrary; fashion ruled; total anarchy was esteemed. No one, said Laugier, had ever studied the work conditions of scientists to find how much or how little equipment, supervision, organization, and direction research workers should have. He himself deplored too much freedom in this field.

Complete freedom?

Of course, there were rare orchids, men of genius, but most research workers were essentially hewers of wood and drawers of water. A great theoretical discovery in pure science may result from solitary meditation or sheer fantasy, but ordinary research is organized teamwork within a definite frame of reference. It can be approached as systematically as mass production, and represents the adaptation of known factors or principles, unified control, planning and organization, correlation of work in various fields, and constant consultation between different specialists. So held Laugier.

On the other hand, Warren Weaver, director of natural sciences for the Rockefeller Institute, speaks of the "incalculably special incentive which drove scientific men during war." He notes that war itself creates a situation wherein absolute authority is relished and a greater degree of organization and planning becomes possible than at peace. Hence scientists suffer a degree of regimentation at war that they would find intolerable at peace.

But money and organized teamwork would not enable research to solve all our problems even at peace, Weaver continues. War discoveries were made with highly inefficient haste. They very largely represented applications of knowledge gained at peace by "free scientists, following the free play of their imaginations, their curiosities, their hunches, their special prejudices, their undefended likes and dislikes." Free scientists can team up voluntarily when they wish, but should not be forced to do so. Fundamental research depends upon the unpredictable, the exotic, the fantastic, and is incompatible with over-all planning.

This controversy has deep interest for so great a scientific institution as the USDA. What do our scientists think about it? Shall it be freedom or organization? Might it not better be such ad-

mixture of freedom and organization as best promotes scientific progress? That seems to be in line with the basic democratic tradition.

Your career in USDA

NEARLY every day someone calls my office to find the best person I can suggest to fill a certain job in the Department. Because the Department is so large, no one person or office can by acquaintance know enough workers or enough jobs to answer wisely. We have to admit our inability to recommend all persons qualified for a specific job. Yet we know there *are* Department employees fully qualified to fill these jobs, many of whom are seeking advancement.

We observe transfers to better positions in other agencies and, at the same time, recruitment from outside to fill positions to which employees who left the Department might have been promoted. In Washington the Office of Personnel has placed, in better positions in the Department, many employees who contemplated transfer. Each such promotion starts a series of other promotions. This means more money to the employees promoted, better utilization of trained personnel, and improved morale of all employees affected. Those promoted feel that "their boss" is a good fellow because he is always alert for opportunities to advance those under his supervision.

Secretary Anderson has said that he wants every employee given the opportunity to utilize his skills to the highest degree, even if it means transfer to other Government agencies or promotion to positions outside the Federal service.

The Department has now developed and applied a program for the promotion, reassignment, and transfer of its own employees. This plan, outlined in Personnel Circular 147, enables those best qualified to file a summary of their training and experience in Pers. These qualifications can be reviewed whenever a vacancy occurs which cannot be filled within the bureau where it exists.

Already several bureaus have developed active programs of internal promotion which embody the Department-wide placement program. The combined programs result in a unified promotion-from-within policy which substantially reduces the dollars-and-cents cost of operations. It also tends to prevent the serious loss of efficiency that

occurs when employees leave USDA for promotions elsewhere.

Most of our employees desire a career in this Department. To be sure that you will have a successful career in USDA, it is suggested that: (1) You master your present job; (2) get from your supervisor or personnel officer a copy of *What's Your Future?* a guide for USDA employees' career development; (3) ask your supervisor and personnel officer about opportunities for advancement that arise from time to time, and how you can qualify yourself to be considered for the vacant positions; and (4) study the announcements issued in connection with the Department-wide placement program. If you qualify for one of the positions announced, be sure to mail your application to your bureau personnel officer for transmittal to Pers.

With best wishes for your future with the Department!—T. ROY REED, *Director of Personnel*.

In PMA

THE STATUS of the Federal Crop Insurance Corporation within the Production and Marketing Administration has been clarified by two memoranda.

Administrator's Memorandum No. 2, Supplement 6, Amendment 1, September 29, rescinded Section VIII of Administrator's Memorandum No. 2, Supplement 6, September 12, which had assigned FCIC functions, funds, personnel, and property to certain PMA branches. Secretary's Memorandum No. 1118, Supplement 1, October 8, established FCIC as a bureau within PMA. As such it will formulate and administer crop insurance programs and be responsible for all its own fiscal and administrative activities. Its Board of Directors consists of the Secretary of Agriculture, Chairman; the PMA Administrator; and J. O. Cobb, a consultant of PMA.

On October 11 it was announced that Hobart Creighton of Warsaw, Ind., would become director of PMA's Poultry Branch, of which T. G. Stitts had been serving as acting director, in addition to his duties as director of the Dairy Branch. Creighton, a native of Indiana who attended Indiana University, has had more than two decades of experience in commercial poultry and egg production. He directed the extensive operations of the Creighton Brothers Poultry Breeding Farms at Warsaw.

USDA hopes eventually to publish brief sketches of the functions of each branch in PMA and brief biographies of their directors,

Miller to Simms in BAI

ARTHUR W. MILLER, Chief of the Bureau of Animal Industry, retired October 31 after more than 44 years of service in the Department. Dr. Miller, who was raised on a ranch in Kansas, and, for a time, raised purebred horses, received a D. V. S. degree from Kansas City Veterinary College and came to the Bureau in 1901. He has had widespread experience in meat inspection, in the control and eradication of animal diseases, and in supervision of packers and stockyards under the Federal Packers and Stockyards Act, which he administered for some years. In January 1928 he became Assistant Chief of BAI and in August 1943 was named Chief.

Bennett T. Simms, in charge of the USDA Regional Animal Disease Research Laboratory at Auburn, Ala., succeeds Dr. Miller as BAI Chief. Dr. Simms, who has a D. V. M. degree from Alabama Polytechnic Institute, has been at the Auburn lab since 1938. There he directed development of a method for controlling coccidiosis, a parasitic disease of young calves, and research on internal parasites of cattle and on the use of phenothiazine for their control. He is now president-elect of the American Veterinary Medical Association.

Food and income

WHILE the capacity of the human stomach is limited, it is nevertheless a fact that the quantity of food people purchase depends on their income. Annual expenditures for food rise steadily with increased income. Whereas families with annual incomes below \$500 consume little more than a thousand pounds of food per person, those with incomes of \$5,000 and more per year buy a ton of food per person.

There is a quality as well as a quantity difference here, too. The low-income families purchase relatively cheap foods. They depend heavily on bread, potatoes, beans, and similar inexpensive articles of diet. It is the high-income families which eat most of the fruits, meats, dairy products, and fresh vegetables. Hence any general rise in family incomes results inevitably in expanding markets for food products and enhanced farmer prosperity.

You can put that in figures. For each increase of 1 billion dollars in the annual earnings of low-income workers there would be a corresponding increase of at least 200 million dollars in food

expenditures, plus increased purchases of cotton and tobacco as well. Hence a modest increase in the incomes of low-paid workers would be a highly desirable type of insurance against a substantial decline in demand for farm products resulting from decreased purchase thereof for the armed forces and lend-lease.

These are some of the things Secretary Anderson told the Senate Subcommittee on Education and Labor on September 27. His entire statement should be read, chart and all. Ask Press Service for 1802-45.

Chinese study in USDA

THE Foreign Economic Administration, which administered the lend-lease program, was instrumental, before its abolition, in bringing to this country 21 Chinese professional agricultural workers for 9 months' study of our extension work. They were selected by their Government to aid in the development and expansion of China's Agricultural Extension Service and are all graduates of agricultural colleges. Their training here will require the assistance of most of the cooperative extension services in all 48 States.

They came here as part of an over-all project to aid the reconstruction and expansion of China's agriculture and industry, and they left for the U. S. before the lend-lease program ended officially. Each of the students, 20 men and 1 woman, will study extension work in at least 2 different States and 4 different counties, and will also spend several weeks at the Beltsville Agricultural Research Center. Each trainee will, in addition, live with a farm family for a month or longer to study the practical application of scientific farming methods.

In China the students were engaged in the production, handling, and marketing of vegetables and other farm crops, organization of co-ops, preservation of fruits and vegetables, seed production and analysis, soil improvement and management, insect control, farm management, agricultural finance, use of farm machinery and fertilizer, extension work, and visual education. They will return to China in June 1946 to serve in some phase of extension work (founded in 1944) under the Ministry of Agriculture and Forestry. Provincial extension offices also have been opened in 592 of China's 3,000 hsien or counties.

These students made a most favorable

impression on the editor when he talked to them about the history and structure of the USDA soon after their arrival. They were very attentive and also determined to get and study all the USDA mimeographed documents on our structure, functions, research, and other activities.

Congratulations!

T. ROY RED announced in Personnel Memorandum P-545 that, from April 1 to June 30, 18 Department employees were granted within-grade pay increases for especially meritorious services. They are:

Elmer Livengood, scientific aide, Bureau of Animal Industry, Albuquerque, N. Mex.; Earl D. Hubbard, veterinary livestock inspector, BAI, Des Moines, Iowa; Carl H. Dorn, administrative officer, Soil Conservation Service, Washington, D. C.; Faith E. Baldwin, clerk-stenographer, SCS, Batavia, N. Y.; Edmond R. Bates, soil conservationist, SCS, Ekalaka, Mont.; George M. Burns, soil conservationist, SCS, Ashland, Ala.; Ellen S. Cobb, clerk-stenographer, SCS, Spartansburg, S. C.; Durell E. Hess, forester, SCS, York, Pa.; Orville H. Hosmer, civil engineer, SCS, Portland, Ore.; James K. Livingston, agricultural engineer, SCS, Natchitoches, La.; Robert G. McVicker, engineering aide, SCS, Hiawatha, Kans.; Verna C. Mohagen, administrative officer, SCS, Washington, D. C.; George E. Summers, soil conservationist, SCS, Keosauqua, Iowa; William C. Wharton, automobile mechanic, SCS, Bozeman, Mont.; Julia D. Conner, chief, general files, Farm Credit Administration, Kansas City, Mo.; Grace N. Klar, clerk-typist, Forest Service, Washington, D. C.; Bert R. Lexen, silviculturist, FS, Fort Collins, Colo.; John L. Moyers, administrative assistant, former Office of Labor, Atlanta, Ga.

Research achievements

THREE NEW Research Achievement Sheets appeared in September. No. 44 describes the late F. V. Coville's classic work on blueberries, carried on in collaboration with G. M. Darrow, as a direct result of which a blueberry industry developed in New Jersey, North Carolina, Michigan, and several other States, that, in 1944, produced a crop with a sales value of 2 million dollars. Since the work has cost only about \$152,000 to date, it proved well worth while in dollar figures.

No. 45 describes the just as classic work by O. F. Cook, carried on with C. B. Doyle, which pointed out the necessity for, and resulted in the establishment of, one or more one-variety cotton communities in 581 of our 750 cotton-producing counties. As a result, approximately 300,000 farmers produce nearly 5 million bales of cotton of improved quality at an enhanced cash re-

turn of \$7 per acre. The work cost about \$800,000; as of 1944 it brought an increased annual income of 56 million dollars.

No. 46 describes work done by C. W. Knox and C. D. Gorson to demonstrate that fast-feathering chickens make superior broilers. The work cost approximately \$8,000, is at present worth a half million a year, and will be worth much more as the information becomes more widely used. Apply to the office of the Coordinator of Research Publication in the Agricultural Research Administration for copies of these Research Achievement Sheets.

Mr. Arlington Farm

ABOUT the only way the old timer can get his bearings on the site of the former Arlington farm is to search out the soldier's swimming pool. That is on the site of Arlington Farm's old water supply—the Bog Water Reservoir. The Pentagon Building now stands where research men once got cricks in their backs checking over their trial plats. Dormitories for Wacs and Waves and "Marinettes" rise north and south of the row of beautiful oak trees that lined the main entrance to Arlington Farm. Once Arlington Farm was the pride and joy of the Bureau of Plant Industry; the most important agricultural experiment station in the United States. And Earl C. Butterfield, who retired September 30, 1945, was resident superintendent. He was Mr. Arlington Farm.

For more than 40 years he held himself there subject to calls night and day from jittery research workers worrying over the "babies" they had left in his care. It is incredible that he has not had at least three or four homicides charged against him. But, no. His motto has been "live and let live," and he has applied it to humans as well as to the plants in his care. It's probably the old Kansas spirit. He was born at Marysville, Kans., in 1875, acquired his B. S. at Kansas Agricultural College, and came to work for the Department in 1902.

It was his background of experience at Arlington Farm that enabled him to step into the breach when the Agricultural Research Center at Beltsville, Md., faced a crisis back in 1935, and in 6 months as director to help materially in mapping the road along which this great station has moved so steadily and so successfully. Then he went back to his beloved Arlington Farm, to remain until the land was taken over by the

War Department in February 1942, when he came to the Plant Industry Station at Beltsville, Md. Here he carried on in his usual efficient manner, but it was evident that his heart was still at Arlington Farm—at the farm where one could look across the river at the Lincoln Memorial, the Washington Monument, or the Capitol's dome. Looking to the west, one might see the historic Arlington mansion and the Arlington National Cemetery.

Butterfield knows Arlington and its history. He tells us that Arlington Farm and the National Cemetery were parts of a grant of 6,000 acres of land made October 21, 1669, by Sir William Berkeley, then Governor of Virginia, to Robert Howsen for help in bringing settlers to Virginia. Howsen it was who named the property "Arlington." He seems to have lost his enthusiasm for it quite promptly, however, since he traded it the same year for six hogsheads of tobacco!—JOHN A. FERRALL, PISAE.

Dairy branch, PMA

UNDER the Production and Marketing Administration, the Dairy Division of the former Dairy and Poultry Branch of the Office of Marketing Services has combined with the dairy functions of the former Office of Supply to become a separate Dairy Branch. This branch is responsible for initiating and carrying on broad dairy production and marketing programs. Marketing-agreement and order programs for fluid milk have been in operation since 1933 in most interstate markets in the East and Middle West, with 26 now in operation and additional requests on file for programs in new markets.

All remaining War Food Orders on dairy products are administered by the branch. Its operations also include inspection and grading of dairy products and the market-news service, covering the collection and publication of information on supply, demand, movements, prices, price-quality relationships, and related market developments. The National Eight-Point Dairy Program—now in its fourth year—continues to emphasize the maintenance of efficient, high-level production, utilization, and distribution of milk and milk products in accordance with postwar needs.

Dairy market news and inspection and grading services began during World War I. Subsequently the Bureau of Agricultural Economics had a Dairy and Poultry Division, later incorpo-

rated into the Agricultural Marketing Service. In 1942, when the Agricultural Marketing Service merged with the Surplus Marketing Administration (to become the Agricultural Marketing Administration), T. G. Stitts headed the Dairy and Poultry Branch, holding the post through several bureau changes. In Government work since 1927, Stitts is a practical marketing man with a Ph.D. from the University of Minnesota, and a background of county-agent and cooperative-marketing work in his home State.

Since the end of the war the branch is glad the War Food Orders have been terminated. It is especially proud of its successful milk, cream, and ice-cream programs which controlled the consumption of these popular products without rationing. In fact, the branch is pretty proud of its entire war program.—GRACE E. M. WHITE, PMA.

Brief but important

Newton County, Miss.: You will find in Rural Sociology for September an objective and wholly fair analysis of the Newton County Rural Health Services Association, Inc., subsidized by Farm Security Administration. It is entitled "Experimenting in Rural Health Organization" and is by James E. Montgomery, of the Bureau of Agricultural Economics, in Atlanta.

A ton of food each year: That's just about the quantity you'd consume annually, if you have a normal adult appetite and a full pocketbook! So maybe you'd like to know all about freezing to preserve home-grown foods. In that case, get hold of Circular 709, issued in August by H. C. Diehl, of the Western Regional Research Laboratory, and K. F. Warner, of the Bureau of Animal Industry. It covers meat, game, poultry, eggs, butter, seafood, and fruits and vegetables from apples to youngberries. Remember, it doesn't discuss large-scale commercial freezing but the preparation and freezing of foods in small quantities for home use.

Dates: Older members of our staff will remember eating dates some years ago and bringing the seed back to people in the Bureau of Plant Industry. In those days various Old World date varieties were being introduced into the U. S. by Department scientists. They came from Algeria, Tunisia, Egypt, and Iraq, and names like David Fairchild, T. H. Kearney, and W. T. Swingle at once spring to mind. But, in 1944, the U. S. itself produced 18 million pounds of dates from introduced varieties. Look up Circular 728, issued in August, on Date Culture in the United States, by Roy W. Nixon, Bureau of Plant Industry, Soils, and Agricultural Engineering.

DDT: Under date of September 5 the Food and Drug Administration of the Federal Security Agency, Washington, D. C., issued a mimeographed statement on the home and home-garden use of DDT. Copies may be secured from the Administration.

United Nations cultural organization: The Department of State has issued a pamphlet on the proposed educational and cultural organization of the United Nations, giving the President's views, the background and analysis of the problem, and a draft constitution. Available from Superintendent of Documents at a dime a copy.

Surplus Property: Under this title the Surplus Property Board's Information Division has put out a pamphlet on where to go for surplus property, the sales facts, and location of the sales offices. Get it from SBB itself.

Country book store: There's probably something for a good many of us to learn in an article entitled "Book Store on a Farm," written by William A. McGarry, to be found in Printer's Ink for September 7. It tells how Ed Robinson, an employee of a huge advertising concern, suddenly found himself literally catapulted into selling highly specialized books to avid part-time farmers by mail. He learned something about moving farm literature to consumers thereof that would be of interest to many USDA people, information personnel especially.

C. P. 34/79: The USDA recently released a new sugarcane variety with this original and ingenious name. Tried in field tests for some years, it seems especially adapted to growth in the Florida Everglades peat or sawgrass muck, and has there surpassed all commercial varieties in yields of cane and sugar per acre. It is resistant to red rot, leaf-spot diseases, and mosaic and, in Louisiana, to the sugarcane stalk borer. Its fiber content is rather high and it is susceptible to chlorotic streak, a disease that does not occur in Florida.

Herbert O. Calvery: With great regret the Food and Drug Administration announces the sudden death, at 47, of this outstanding scientist who headed their Division of Pharmacology. As he entered FDA in June 1935, he was for some years a USDA employee and since his agency was transferred he has worked closely with Department scientists on many occasions. He died September 23.

Three more 2-gallon blood donors: James Langdon, Ralph Young, Anne Duncan, all of the Forest Service, Portland, Oreg.

Bombed out: It took the atomic bomb to put one of the Nation's 1,400 farmer-organized soil conservation districts out of business. The North Benton, Wash., Soil Conservation District was reported inactive in April 1944, after most of the district's 292,000 acres had been purchased by the Government. Now it is known that the conservation farmers were giving up their land to the world's first large-scale (430,000-acre) plant near Pasco, Wash., for the production and separation of the rare element, plutonium, used to explode the atomic bomb.

FEA abolished: When the Foreign Economic Administration was abolished by Executive Order on September 27, its functions concerned with foreign-food and all other programs involving food facilities were transferred to the USDA.

Dairy exports: U. S. dairy exports are expected to be materially reduced, according to the Bureau of Agricultural Economics. Non-fat dry-milk-solids exports probably will stay at a fairly high level for some time, but exports of canned milk and cheese will materially decrease, and butter will revert to its prewar negligible status in foreign trade. Exports of dairy products mounted sharply with passage of the Lend-Lease Act in 1941. At the outbreak of World War II the U. S. was primarily a net importer of dairy products. In the 1930's less than one-half of 1 percent (milk equivalent) of the total milk production on farms was exported.

Organization chart: The Department has settled down sufficiently for it to become possible to draw a new organization chart. As usual, USDA has some of these charts available for distribution; phone or write the editors.

What's Ahead for Agriculture: Arthur P. Chew, of the Office of Information, provides an excellent analysis of the possibilities under this title in the New Republic for September 17. Like most of Chew's writing, it has substantial and permanent value.

Recentralization: The Rural Electrification Administration was electrified on September 27—over the news that the agency would be moved back to Washington as soon as space can be had in the South Building. REA was transferred to St. Louis in the spring of 1942 in order to release office space for emergency war activities. The press release announcing the return said the move "will make possible closer integration of REA in the Department organization and programs."

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USDA

FOR NOVEMBER 26, 1945

Insect Menace

IN 1931 L. O. Howard published a book of this title. He had just retired from the Bureau of Entomology at the time, after serving in it from 1878 until 1930 and heading its work from 1884 until 1927. He was a great researcher, crusader, and expert on houseflies, mosquitoes, and menacing insects generally, and he still lives in quiet retirement near New York City.

Under the title, "Unto One of the Least of These," Dr. Orlando Park, of Northwestern University, expounds the realities of today's insect menace in Science for October 19. He says that man has learned to hurt or kill more people in less time and to patch them up more efficiently than ever. On the day the atomic bomb came into the news, the Rockefeller Foundation was appropriating money for cancer research.

While this state of affairs is biologically ridiculous, according to Park, man may continue along this line until he accomplishes his own annihilation. Suppose we just can't stop killing one another in ever-increasing numbers? The insects are quite ready to take over from us and to assume global supremacy, because we shall hardly kill all of them before we kill ourselves off, at the rate we are going.

Insects increasingly menace agriculture and spread disease, but they also effect the pollination of many flowers, hence are responsible for many fruits and vegetables. They play a vital role in soil formation. We must learn to live with them, yet control them. Insect control thus assumes paramount importance. There is still time to preserve the human species but, according to this authority, not much.

Meanwhile the insects are getting smarter and smarter in the face of improved insecticides. They are developing immunity to poisons. While the

weaker strains are killed off, stronger and more vigorous strains, highly resistant to toxic substances, are developing. Just the other day W. J. Schoene, head of the entomological department at Virginia Polytechnic Institute, told the editor about this. The actual work is being done by Walter S. Hough. Hough's Technical Bulletin 91, published from VPI in November 1943, is entitled "Development and Characteristics of Vigorous or Resistant Strains of Codling Moth." Some of these moths can stand 10 times as much poison as others and still destroy apples industriously.

So insect control becomes a race between research workers on insecticides and the insects' ability to develop resistance. Fortunately the Virginia Experiment Station has perfected a power sprayer equipped with an airplane propeller which spreads insecticides so effectively—even when used after dark—that, under known conditions of population density, the codling moth can be obliterated for a time. But it always comes back for more. Which will win out, insect or man?

Paul M. Williams

BACK IN 1918 a young married man, aged 27, and bearing no fancy degree, left private business with his father to become a USDA marketing assistant, in fruits and vegetables, at \$1,800 per. Paul M. Williams was on his way. Think of him every time you see a can of fruit or vegetables bearing on its label the announcement that it meets USDA quality standards.

Those were the days of World War I and young Paul thought the "war emergency assignment" he was asked to accept involved temporary employment for his country's good. He accepted in a letter bursting with honest patriotism, and his "war emergency" extended into

World War II. In spite of outside beguilements Paul stayed on with USDA. He was now and then tempted to take "a hard job" but, he said, "I haven't found one yet." But the Department couldn't spare him and fortunately he decided not to spare it.

In one instance an exchange of letters developed the fact that, while Williams had a clean bill of moral health and a high rating with the Christian Endeavor Society, you couldn't trade a jackknife with him and come off best, even if he was blindfolded. In fact, some prospective employers may have been scared off by fear that, if they hired Williams, they might wake up some fine morning to find that he had become president of the company.

Anyway, a promotion file began to accumulate in the Department's somewhat leisurely way and once, quite a few years ago, Clarence W. Kitchen wrote: "Congratulations. Wish we could have done much better in view of the high character of the service you have rendered." Thereafter other promotions, excellent efficiency ratings, and memoranda recommending advancement came regularly.

So it was that World War II found Paul Williams immersed in Army inspection work, carrying a tremendous burden because of manpower shortage and calling on the first lady inspectors the USDA ever employed. The circle was almost complete. Williams survived two war emergencies, then, on October 5 last, at 55, he died at Temple University Hospital, quite as much a war casualty as his boy who fell on Iwo Jima.

This bare, inadequate outline of 27 years devoted to public service gives but a hint of Williams' courage, candor, and crusading spirit. To him the American public owes the development of U. S. standards of quality for many canned, frozen, and dried foods. In this, as in every phase of his work, he gained the full confidence and respect of producers and consumers alike. His life was one of dedication to the public weal.

Fortunately his spirit will always be in there pitching. He remained with USDA because he was assigned a hard, interesting, fighting job that he loved. He always fought for what he thought was right. He nearly always won his fight. Public servants don't come any better than Paul M. Williams. And so he finished the course. Prosaic bureaucracy referred to him as Assistant Director for Regulatory and Marketing Services, Fruit and Vegetable Branch, PMA.

Virginia pathologists

S. A. WINGARD, plant pathologist of the Virginia Agricultural Experiment Station, has apparently rediscovered the vine Jack of the Bean Stalk used in his adventures. In fact he has bred up, and we do mean *up*, ten stains of rust-resistant pole beans which give remarkable yields in many higher parts of the State and which are literal giants for upward surging growth. He sent out about 9,000 packets of seeds the past season to be tried out all over the State by home gardeners, most of whom have made enthusiastic reports. Quality is excellent.

E. P. Johnson, animal pathologist at the same station, has discovered how to combat a devastating disease of turkeys which is spread by the black fly. The disease is caused by a protozoan and the fly vector spreads it just as the cattle tick spreads cattle-tick fever. Losses run up to nearly half of flocks affected and death of a quarter of a flock is common. Wild turkeys, which exist now in only a few parts of Virginia, form natural reservoirs of the disease.

So also do old turkeys carried over from a previous season. If these are all killed before a new season begins, practically perfect control of the disease is obtained. The fly itself, an aquatic insect, is not readily amenable to control. Naturally these two pathologists have performed much other research of importance and value. We can give but brief indications from time to time of what experiment station staffs are accomplishing, and even then we do them scant justice.

0.0004 cent a can

DID you ever notice canned fruits or vegetables marked U. S. Grade A or U. S. Fancy; U. S. Grade B or U. S. Extra Standard; U. S. Grade C or U. S. Standard? Did you ever read this on a can label: "Packed under continuous inspection of the U. S. Department of Agriculture?" Well, it costs the canners about 2 to 4 $\frac{10}{1000}$ of a cent extra per can to produce goods bearing that label. But it is worth a great deal more than that to you.

It means, first of all, that the product has been put up in a sanitary processing factory meeting specified standards. It means that the fruits or vegetables processed are handled carefully and without delay, that the water supply used is pure, and that every step of the processing is maintained at high hygienic levels. The workers and their clothing are kept at

a high standard of cleanliness. The use of tobacco is not permitted in processing rooms. Everything, from beginning to end of the process, takes place under the careful scrutiny of a USDA inspector for whose services the canner reimburses the Department.

Why do an increasing number of canners engage this service? They do it because it pays them to turn out a carefully processed and graded product under a comprehensive label in which the consumer has utmost confidence. For all packs are carefully analyzed and graded according to highly practical standards. Grade A or Fancy on the label means that you will find in the can a first-rate food, carefully selected and processed to produce uniform size, high color, and the ultimate in ripeness and tenderness. Both Grades B and C have excellent food value but are less excellent in appearance, size, color, and maturity.

Farmers, growers, bankers, marketers, and consumers are uniformly pleased with this service. The Government stamp of approval has real sales value. It protects both the processor and the buyer, and is cheap at the price—0.0004 cent a can.

Versatile 2,4-D

2,4-D IS the familiar pet name of an organic compound with which chemists have had rather prolonged acquaintance. Its full name, and it seems as if *we do mean full*, is 2,4-dichlorophenoxyacetic acid, and it is versatile indeed. Discovered to be a growth-regulating substance for plants a few years ago, it began to be used in preventing premature pre-harvest drop of fruit. Then it turned out to have the strange ability to kill off unwanted plants like dandelions and plantain which spoil lawns and golf courses.

At this point it got into the news in a big way and it is already available in stores—often under fancy names. It is relatively inexpensive, provided you don't demand too fancy a name or package. It effectively discourages weeds in lawns, parks, and golf courses. Tests haven't gone far enough to show just what value it will have for weed control in farm crop production, but there's considerable room for hope.

As interesting as anything is its manner of action, as worked out by Drs. J. W. Mitchell and J. W. Brown, of the Plant Industry Station at Beltsville. They find that vulnerable weeds curl up and die when sprayed with 2,4-D because their food reserves are depleted or

burned up. The roots of dandelion and annual morning-glory shrivel up and die, their root reserves being reduced to almost nothing in 2 or 3 weeks. Then they just stop growing. If a weed can be caught when its nutrient reserves are at their lowest ebb—like dandelions after about 3 weeks of early spring growth and just before flowering—it becomes easier prey. So the slogan is "Hit them while they're down."

Meanwhile, this versatile substance bids fair to help check preharvest fruit drop, speed ripening of green bananas, prevent growth of bacteria in fungus cultures, and slap down weeds. What more could you ask?

Bucolic movies

BOSLEY CROWTHER, writing in the New York Times (no less), recently wondered why Hollywood seldom makes pictures about American farm life. In the movies we see night clubs, penthouses, mansions of the rich, typical small towns which are not somehow typical, British country estates, Chinese rice fields, and even the ranch of the perennial westerns. "But the good old American 'forty acres'—the plain, everyday 'dirt farm'—or even the dairy or the grain grange very rarely appears on our screen."

Yet Crowther sees in the farm an unbounded area of pictorial opportunity. "Barns and chicken houses, open fields and country lanes, always photograph most beautifully, even with people in front of them. Livestock is always colorful, farm machinery is fascinating, and there's nothing that intrigues the optics like the sight of abundant food. And, according to our recollection, the people who live on farms have as much, if not more, natural dramas in their lives as do city folks."

Of course, the farm population as a proportion of the total population had fallen far below the 90 percent with which it began before the movies really got under way. Today, with something like 20 percent of our people on farms, commercial film producers may think them unimportant, but they do not even get their proportionate representation. True, as Variety says, in its own unique distortion of English—"sticks nix hicks pix." But nostalgic country boys infest every city, even greater New York.

Crowther finds State Fair in technicolor and Our Vines Have Tender Grapes synthetic and unsatisfactory. The Southerner is more to his taste, because it gives a true picture of the poverty-stricken sharecropper trying to

scrabble a living out of a few bales of cotton grown on a weedy piece of land. It shows "genuine regard for the hopes and despairs of a poor farmer who feels a deep attachment to the soil." According to Crowther, it even depicts pictorially "some of the wretchedness of farm poverty and of the system of virtual peonage that prevails in certain rural areas." Maybe we better look that one up!

How to treat a secretary

(1) NEVER tell her about any conferences or meetings you attend, because if she is kept well informed on what is going on, she might be able to answer inquiries when you are away from the office.

(2) Never ask her to compose letters for your signature, because then you wouldn't get to dictate them!

(3) Never let her feel that the office is her responsibility when you're away, because she might run it very efficiently, and that would detract from your prestige.

(4) Never allow her to change your letters when dictated, because there is a chance that she is more up-to-date on rules and regulations than you are.

(5) Never leave your itinerary with her, because this would facilitate her getting in touch with you in case of an emergency.

(6) Never allow her to discuss your business with other men in the office. They might think she was being helpful to you in keeping things moving.

(7) Don't trust her to answer even routine correspondence in your absence, because some things might be taken care of before you return.

(8) Be sure to make her feel that her only responsibilities are taking dictation and transcribing it verbatim. This will make her much more at ease if an emergency matter comes up during your absence.

(9) Never praise her for a job well done, but be sure to offer constructive criticism for her mistakes.

(10) Never introduce her to visitors to your office. This will make her poised and comfortable when these same people return in your absence.

(Contributed by a field employee.)

Two USDA chemists

PROF. C. S. Hudson, of the National Institute of Health, will be given a unique honor in fall 1946 by the Division of Sugar Chemistry and Technology of the American Chemical Society. Two of his associates have undertaken the job of

assembling and reprinting his 300 research papers in a 2-volume edition as the Collected Works of C. S. Hudson.

Hudson began his remarkable researches in the field of carbohydrate chemistry in our old Bureau of Chemistry, when Harvey W. Wiley was chief. He continued his work in the National Bureau of Standards and the National Institute of Health. At a morning session of the society's forthcoming 1946 meeting, four papers will be presented describing the importance of Hudson's contributions, and a series of papers will follow, outlining current progress in carbohydrate chemistry.

Some workers in the Bureau of Dairy Industry, however, may remember that, some years ago, the colleagues of Lore A. Rogers produced a book on dairy science to commemorate the twenty-fifth year of service by Rogers in BDI. Dr. Rogers served a good many more years after that, retired some time ago, and is doing very well in the dairy business.

Dr. Charles A. Browne, also long associated with our Bureau of Chemistry and its variously named successors, is likewise in the news. He, too, is a sugar chemist. He has presented his collection of rare books, manuscripts, portrait prints, and other chemical memorabilia to the Edgar Fahs Smith Memorial Library, of the University of Pennsylvania. The material represents years of search by a discriminating collector and relates to the historical development of chemical science from the days of alchemy to modern times. Dr. Browne is not only a distinguished chemist and successful administrator, but also a gifted and well-recognized historian.

Value of pure research

IN USDA for August 6, there was an article about our Journal of Agricultural Research, which said that we would refer later to the permanent scientific value of certain articles published therein. As we indicated some time ago in another connection (USDA, April 15, p. 2, Scientific Publication) the article, Carbon Tetrachlorid for the Removal of Parasitic Worms, Especially Hookworms, by Maurice C. Hall (21: 157-175, 1921), has proved to be worth millions of dollars, and undoubtedly would have paid the expenses of putting out the JAR for its entire existence several times over. For discovery and application of this treatment has already paid a dividend of 75 million dollars in aid to human beings.

Much the same thing could be said of the article, Effect of the Relative Length

of Day and Night and Other Factors of the Environment on Growth and Reproduction in Plants, by W. W. Garner and H. A. Allard (18: 553-606, 1920). This work demonstrated the importance of length of daily illumination on the initiation and regulation of sexual and vegetative reproduction in plants. Thousands of studies all over the world have stemmed from this paper and it has perhaps been more often referred to than any other paper which has appeared in JAR.

Then there was the pioneer paper, Derris as an Insecticide, by N. E. McIndoo, A. F. Sievers, and W. S. Abbott (17: 177-200, 1919) which first showed the value of derris as a stomach poison and contact insecticide. After the publication of this paper, derris rapidly became one of the most widely used of all insecticides. The Government's wartime efforts to procure rotenone, derived from the roots of derris and cube, prove the continuing importance of this material.

Three papers on apple-scald by C. Brooks, J. S. Cooley, and D. F. Fisher (16: 195-217, 1919; 18: 211-240, 1919; and 26: 513-536, 1923) demonstrated the trouble to be a physiological disease caused by respiration products escaping through the skin of the fruit, and showed how the difficulty could be avoided by the use of oil-paper wrappings. As a result apples became a year-round staple. On storage varieties the saving has been 25 cents a bushel, meaning that the discovery is now worth close to a million dollars a year.

Canker, foulbrood, et al.

An extremely important piece of work bore the title *Pseudomonas citri*, the Cause of Citrus Canker (4: 97-100, 1915), and was by Clara H. Hasse. The disease was spreading with great violence in Florida, Alabama, Mississippi, Louisiana, and Texas; no means of effective control could be used because its cause was unknown. Miss Hasse proved an as yet unnamed bacterium to be at fault, and methods of control were instituted. As a result citrus canker, instead of eliminating our citrus industry, was itself practically eliminated from this country.

A paper by A. P. Sturtevant, The Development of American Foulbrood in Relation to the Metabolism of Its Causative Organism (28: 129-168, 1924), explained the character of this contagious bee disease and furnished the basis for its treatment. This work proved especially helpful during the war, because

some 50 crops depend on bees and other insects for pollination, and because sugar and beeswax became critical materials.

Three JAR papers by B. R. Leach, W. E. Fleming, F. E. Baker, and L. Koblitky (33: 1-8, 1926; 52: 493-503, 1936; 53: 771-779, 1936) outlined the development of the use of lead arsenate in the soil for the control of Japanese beetle grubs. This method of grubproofing has had extensive use on lawns, golf courses, and park turf areas, as well as in general Japanese beetle control. Nearly a million pounds of lead arsenate was used for this purpose in 1941 and 620,000 pounds in 1942.

A paper by G. J. Haeussler on an important parasite of the oriental fruit moth (45: 79-100, 1932) presented basic research which aided in the subsequent development of the only effective method now known for the control of this destructive pest. Since the publication of this paper, the Department has been breeding this parasite on a mass production basis and establishing it in practically all the peach-producing areas of the country. Haeussler is now Chief of the Division of Insect Pest Survey and Information, Bureau of Entomology and Plant Quarantine.

A highly technical paper with a formidable title, by R. A. Steinberg (51: 413-424, 1935), which showed how scientists' nutrient solutions could be purified in the laboratory, resulted in a demonstration that so-called "trace" elements, present in minute quantity, are essential to the life of plants. This led to practical results, for crops could be grown and animals fed successfully on land hitherto regarded as petering out or poisoned.

This scant selection of papers will serve to indicate to laymen the basic importance and immense long-time value of research papers they could not comprehend if they read them, and which regularly appear in the foremost American Journal of its kind, USDA's Journal of Agricultural Research. (Prepared with the assistance of Falba L. Johnson, Office of Information.)

Bowling saves millions

SAVINGS OF well over half a billion dollars in the freight bill of American farmers during the last 6 years are largely the result of work done by the Transportation Rates and Services Division of the Marketing Facilities Branch, Production and Marketing Administration. The excellence of this work has won the praise of such men as H. K. Thatcher, President, National Association of Commissioners, Secretaries, and Directors of Agriculture, and Representative Malcolm C. Tarver, Chairman, Subcommittee of the House Committee on Appropriations.

Transportation is perhaps the largest single cost item in the marketing of farm products. In 1942 the railroads petitioned the Interstate Commerce Commission for a 10-percent increase in rates to offset wage increases. The Department intervened in behalf of the farmer. ICC decided that the railroads should get an increase of 6 percent on processed agricultural products and 3 percent on basic agricultural products. But when it appeared later that even this increase was not justified, in view of the increased volume of war freight that was making money for the railroads, the Department (under sec. 201 of the Triple-A Act of 1938) petitioned ICC to reconsider. ICC did—and successive suspensions of the order since that time has saved about 75 million dollars a year in freight charges.

In addition, the division handles a large number of negotiations and cases on railroad, truck and boat freight rates that cover every American farm product. In the 1945 fiscal year, for example, farmers in every State were benefited by adjustments made during the year (average, 32 to the State). Actions ranging from rate reductions on particular commodities between specified points to adjustments covering the whole country for groups of commodities have resulted from the division's initiative.

Initiative has long been a trait of the man directly in charge of this work—Charles B. Bowling. He's from Memphis. If you should walk along the sixth floor in the South Building's third wing, and out into the hallway should bounce a brown-eyed, dark-haired, middle-aged man, likely as not it would be Mr. Bowling. If, after a few minutes' conversation, you discovered that the man also was accommodating and affable, knew traffic work inside out, possessed boundless enthusiasm for his job, and produced ideas the way a clean spark plug produces sparks, you could be sure it was Charlie Bowling.

He entered the Government in March 1930 as traffic representative for the Federal Farm Board (later, Farm Credit Administration). This job gave him close contacts with cooperative marketing associations and other agricultural organizations over the country. His work in the Department began in July 1939 as chief of the Transportation Division. Before coming to the Government, he represented steamship lines in traffic work, was a broker in marine insurance and foreign exchange, did rate work before various transportation regulatory agencies, and was director of transportation for a large growers' exchange that marketed cotton cooperatively in both domestic and export channels and had affiliates in 12 States.

Grass-roots aid

THERE will be additional "grass roots" responsibility in the 1946 Agricultural Conservation Program to be carried out by the Field Service Branch of the Production and Marketing Administration. The new program gives the farmer committeemen elected under the provisions of the Agricultural Adjustment Act, and their neighbors in local communities, more to say about what conservation practices are going to receive assistance on what farms. The result is expected to be more conservation farming in 1946, as farmers continue to repair the damage to their land from heavy wartime production.

Assistance is given to farmers in the form of conservation materials, services, and direct payments. The program enters its second decade next year. Congress has authorized about the same total expenditures as before, but each dollar will accomplish more soil building and water conserving, because farmers will bear a somewhat larger share of the cost.

From a list developed and approved by elected committeemen and representatives of agricultural colleges, experiment stations, and other agencies, participating farmers will select their own specially needed practices. Local committeemen, who administer the program, will approve the selections within the funds allocated for county conservation programs. In the past, in order to carry out a broad program, a State-wide formula was used to allocate assistance. Now the county allocation plan will help farmer-committeemen to plan a program based on individual needs. Emphasis will be on longer-range soil-building and water-conservation practices.

Generally, these types of practices will

Poles: Former Secretary Wickard is out after poles, with a small p. Rural-Electrification-financed electrification systems require about 3 million poles annually and are a million in deficit this year. REA looks longingly at farm wood lots of the South and lodge pole pine forests of the Rockies, where Forest Service says 25 million pole-worthy trees stand. But labor shortage keeps them standing there. A conference of all interested parties was held recently to break this pole jam. Maj. Evan W. Kelley, formerly of FS, has become special assistant to the REA Administrator in solving the pole problem.

be eligible for assistance: Applications of fertilizers to grasses and legumes, planting of cover crops, erosion control and water conservation, range and pasture improvement, and forestry. Flexible enough to meet the needs of all farmers, the program varies by States and counties, according to climate, topography, type of farming, and conservation needs.—JAMES P. EMERSON, PMA.

A new spaghetti

WHILE America's wartime industry marked rapid strides in the development of machines for war, the food industry was making its mark in meeting food needs created by that same war. Out of these efforts there arises a colorful story yet untold.

In 1943 the United States received a request for a high-protein spaghetti product to be used in rehabilitation feeding. The idea was to combat malnutrition among the people of Greece and other countries by increasing the nutritional value of one of their dietary mainstays, spaghetti.

Plain spaghetti is made of durum flour and water, and the product contains only about 12 percent protein. The Special Commodities Branch of WFA set to work in cooperation with the industry and Government food technologists, and after a period of experimentation came up with a spaghetti product consisting of 10 percent soya flour, 2 percent whole dried egg, 88 percent durum flour, and the necessary water. Consistency of the dough was suitable for spaghetti and the cooked product was quite palatable. Although the dough has a darkish color and a slight soya taste, it is smooth in texture when cooked. In taste and color the product is almost the same as the old-time spaghetti. Most important is that, in the new formula, the protein content was raised to 17.1 percent.

Contracts were let to manufacturers of macaroni products and, by January 1944, the first shipment was on its way to Europe. To conform with the definition and standards of identity established by the Food and Drug Administration, and thus permit interstate shipping, the formula was modified to: 12.5 percent soya, 5.5 percent egg, 82.0 percent durum flour, and the necessary water. The product was called officially durum flour and soya, egg spaghetti, with the minimum protein requirement set at 18.8 percent. First shipments of

this improved spaghetti went to Europe in May 1945.

There the reception was good and the results equalled the reception. However, it is unlikely that the new product will ever find a place on the shelves of the American grocery store, even though some manufacturers of macaroni products continue to produce it. But abroad, where a macaroni product usually is consumed as a food in itself, added protein is highly desirable to combat malnutrition. The new product may serve in relief feeding in many nations of the world.—BERNELL WINN, PMA.

National soil audit

SOIL CONSERVATION SERVICE has made an audit of the Nation's soil resources. It is undoubtedly the most complete inventory of the kind any nation ever made. It demonstrates that 90 percent of our farm land needs soil conservation treatment to protect it from erosion, maintain fertility, and put it to efficient use. It took 3 years to complete this Nation-wide study, which also indicated that 43 million acres now under cultivation should be retired to grass and trees because too steep, too eroded, too wet, too stony, or otherwise unsuited for efficient, economic crop production.

Americans have treated their soil heritage wastefully for generations. Many an owner has seen his farm shrink shockingly under his very eyes. The soil has been mined and exposed often to the ravages of uncontrolled erosion, seriously undermining the productivity of the land. But, during the last 15 years, farmers and ranchers have banded cooperatively together in more than 1,300 soil conservation districts covering parts or all of 1,700 counties. Here land improvement, natural resource conservation, drought and flood-hazard reduction, and betterment of human welfare are under way.

Today we have only 78 million acres of nearly level land not subject to serious erosion, easily worked, and fairly productive, requiring no special soil-conservation practices. Yet we have 1,054 million acres in farms and 417,561,000 acres of cropland. We have 124 million acres requiring contour cultivation, 90 million in need of terracing, 96 million in need of strip cropping, and 212 million in need of crop rotations. It would require 3,634,932 man-years of labor, 327,441 years of use of motor equipment, 1,089,978 years of horse equipment, and

2,544,106 tons of seed to get our soil into good shape.

The New York Times says editorially: "The SCS report ought to spur all concerned to further efforts in this vital matter." The average depth of topsoil has decreased from 9 or 10 inches, in the days when our forefathers planted a codfish beneath each hill of corn, to a mere 6 inches today. Further decrease in its depth would be perilous indeed.

Serving John Q.

JOHN Q. PUBLIC expects a field experiment station to know or find all the answers. The staff members of the Blackland Experiment Station at Temple, Tex., live up to this expectation. A Mr. Hansen visits the station to see the difference between the ridge-type and Nichols terraces. This is down our alley. We show Mr. Hansen the two kinds of terraces and discuss the merits of each.

Mr. Steiglich brings in a dead cotton plant. What killed it? Our plant pathologist identifies the disease as root rot. The phone is ringing. Mrs. Speed has ants in her kitchen. How can she kill them? We don't know, but we look up a good ant-poison formula and Mrs. Speed is happy. The mail brings a letter from Mr. Clements at Moody. He wants to know what legume to overseed in his oats. This is easy—hubam clover. Mr. Smiley is here wanting to know the best kind of hybrid corn for his place. Our corn variety tests give us this answer.

Mrs. Goode brings in an unusual plant and wants to know its name. This one has us stumped, so we send it to one of the specialists at A. & M. College. The phone again—Mr. Huff, a would-be fisherman, wants to know the present barometric pressure to see whether or not fishing will be good today.

Mr. Kosel is here and wants to know the difference between buffalo and Bermuda grass. We show him both and discuss the grazing and water-control use of each. The mail also brings a letter from County Agent Patterson wanting to bring a large group of his farmers to see the station work next Tuesday. We answer that we will be glad to have them. Our letter mentions that the soil-building effect of legumes is now most evident and that the cotton-variety test is now at its best stage for comparison. Mr. Simpson just came in. He says an operations office wants to know the crop yields from different

classes of land. We give him the information for the blackland area.

This is cooperative public service. Have you figured out what agency runs the Blackland Experiment Station? It is cooperatively administered by the Soil Conservation Service Research Division of USDA and the Texas Agricultural Experiment Station.—H. O. HILL, SCS.

(This item affords the best picture we have yet seen of the tempo, type, and flow of work at a field station. We'd like other such reports, brief, graphic, snappy, and informative like the above.—Ed.)

Don't just say spinach—

WHILE nutritionists are accustomed to say that we should eat a couple of helpings daily of green and yellow leafy vegetables, don't just ask for spinach and try to gorge on that. Being of the goosefoot family, it contains no little oxalic acid, *which does not mean it could poison you*, but does mean that the calcium it contains is so tied up it is relatively unavailable to you.

In his *Principles of Nutrition and Nutritive Value of Food* (MP 546), Dr. Henry C. Sherman says:

"Kale is another green deserving of larger use as human food. It will be well if the greens of the goosefoot family, including spinach and beet greens, with their undesirably high content of oxalic acid, are steadily more and more displaced by greens relatively free from oxalic acid. This preferable group includes, among others, broccoli, loose-leaf cabbage and lettuce, collards, turnip tops, mustard greens, and kale."

Dr. Sherman especially recommends broccoli, which is also a relatively sure-crop vegetable. The edible portion consists of the flower bud, though you may never have known you were eating flowers when you consumed broccoli. But remember that the adjacent green leaves and the accompanying tender twigs can also be harvested without injury to the plant and are very nourishing. In fact, Department scientists have made from the customarily discarded outer leaves of broccoli a very high-protein meal excellent for cattle and poultry feed.

Becoming a super secretary: Perhaps it is a little unusual for us to recommend an advertising booklet, but a lot of secretaries, and secretarial aspirants who can't somehow make the grade, would find a great deal to learn in a booklet with a delicate pinkish cover called "Memo: How to be a Super Secretary." The Typewriter Division of Remington Rand, New York City 10, is responsible for it, girls. You may find it very helpful.

The indirect approach

DID YOU ever see a mousetrap running after a mouse? But it catches a lot of mice. This illustrates the indirect approach. Another good illustration is to be found in investigations on packing, handling, storage, and transportation of fruits and vegetables, Division of Fruit and Vegetable Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering. These are directed by D. F. Fisher.

They have not added a single new variety; nor have they directly added an ounce to the production of any variety. But, so far as the consumer is concerned, they have been prolific in accomplishments in these fields. Improved methods of packing, handling, transporting, and storing have given the consumer improved quality—if you compare what he is getting because of them with what he would be buying without their benefit! And by checking diseases and other injuries after harvest, the supply of many fruits and vegetables available to the consumer is greatly increased. That comes pretty close to being a matter of "increasing production," doesn't it?

Another indirect result is that the investigations make available records of transit temperatures, ice meltages, and the general performance of refrigerator cars which reveal shortcomings and thus pave the way for improvement. Such data were used freely in working out the specifications for the U. S. Standard Refrigerator Car developed by the Railroad Administration in World War I, and also in connection with another refrigerator-car construction program in 1935. Right now they are being used to help with plans for a new car construction program for the post-war period.—JOHN A. FERRALL, PISAE.

Farm labor

THE OTHER day a Virginia farmer over 70 years of age remarked to the writer that the farm-labor problem baffled him. When he began to farm, he had paid first-class hired men \$55 a year and keep, and they were excellent help. Indeed, he remembered men who had worked for him years ago for \$3 a week, who now demand \$3 a day, and do much less in a day than formerly. Of course they are older now, but so is he, and he works as hard as ever.

The same day, October 18, the New York Times discussed farm labor. It

remarked editorially that the farm "hired man" had long been in a special category. His hours do not shorten nor do his wages increase as is the case with industrial labor. Tradition gives him a low fixed wage, and board and room, in return for long hours and tireless energy. True, some of our farm factories do today give their workers shorter workdays and bigger pay, but on our 3 million family farms "the status of the farm laborer has changed little in the last generation."

During the war, however, workers on farms dropped to about 8 million from approximately 12 million in the depression years of a decade ago, yet farm production of food and fiber increased 38 percent between 1942 and 1945. Long hours put in by farm families and city volunteers did much to account for this. But mechanization of farm production also made great strides, as it has done during every war in our history. The final paragraph of the Times editorial bears quotation in full:

All these factors have a bearing on the farm-labor situation. It is no longer so easy for an ambitious young man to follow the traditional path to farm ownership: Hired man, tenant, and owner. It seems probable that in the years ahead trained farm workers will become increasingly recognized as an important group. When social security is extended to agricultural workers, when increased mechanization and extension of electric power make a shorter working day possible, it would seem that farm workers could share more of the benefits that labor as a whole enjoys. Fundamentally, it depends on a prosperous agriculture and that in turn depends on a high level of industrial prosperity. It is added proof of the economic principle that the welfare of groups within the social order depends upon the welfare of the whole.

That is one way of looking at the matter. It is not wholly the Department's way. It may not be yours. We raise the question. Any debate?

Want to write readably? You might care for Tom Dale's processed message, To Writers of the Soil Conservation Service: How Does Your Writing Read? Ask SCS's Information and Education Division for it. Also get William C. Pryor's Guide to Writing, for SCS Writers, while you are at it. Bill says reading it will not make you an Anatole France or Booth Tarkington, but it may help you a little!

Farm electrification: Though 44.7 percent of all U. S. farms are now electrified, as compared with only 11 percent when the Rural Electrification Administration's program began in 1935, there are still 6 million unelectrified rural nonfarm and farm homes. Funds totaling 100 million dollars have been allocated by REA for loans in various States, each State sharing in the funds in the proportion which its unelectrified farms bears to the total number of such farms in the U. S.

FAO

ON THE afternoon of November 7, Secretary Anderson spoke in Jefferson Memorial Auditorium on the Purpose, Development, and Organization of the Food and Agriculture Organization of the United Nations. Under Secretary Hutson was chairman of the meeting at which the others who reported were Research Administrator P. V. Cardon, Dr. Hazel K. Stiebeling, Chief, Bureau of Human Nutrition and Home Economics, Lyle F. Watts, Chief, Forest Service, H. H. Bennett, Chief, Soil Conservation Service, L. A. Wheeler, Director, Office of Foreign Agricultural Relations, and Dr. Howard R. Tolley, Chief, Bureau of Agricultural Economics.

FAO officially came into being at Quebec, Canada, October 16, with the signature of the Netherlands, the twentieth of 30 nations to sign up that day. It is a permanent international organization designed to help prevent the kind of starvation and distress that has always afflicted millions of the world's people, war or no war. It is not, like UNRRA, a temporary relief organization. The Secretary's report was concise and direct and he was especially emphatic about the friendliness and co-operation of the Russian delegates to Quebec. He was U. S. delegate to Quebec, and was highly complimentary to the entire delegation.

Sir John Boyd Orr, distinguished Scottish nutrition scientist, became FAO's first Director General, for the term ending December 31, 1947. Dr. Tolley became vice chairman of the 15-member Executive Committee. FAO's temporary headquarters will be in Washington, D. C. If you want more information, contact Gove Hambidge (former USDA information man), Food and Agriculture Organization, 2841 McGill Terrace NW, Washington, D. C. See especially his talk: *The Coming War Against Want*. You might also be interested in an article by the *USDA* editor in October *Free World*, entitled "Shall We Have a Well-Fed World?"

Telephone: The telephone is an instrument which, as long as you sit by it, never lets out a yelp. Leave it alone for 5 minutes and it will ring 12 times. Later 18 people will tell you they rang you 25 times over a period of 2 weeks and were never able to find you in. Why not use the *very briefest possible* memoranda instead of trying vainly to get people by telephone? The memorandum has the further advantage of being a permanent record written out which can be reread, while what you say can easily go unheard or be distorted. People will hate you for using memoranda, but they get results, which may be why they will hate you for it!

USDA: November 26, 1945

Potatoes in China

A CHINESE delegate at the United Nations Food and Agriculture Conference made the somewhat surprising statement that by demonstrating the value of the potato in China as an effective famine-relief crop, Dr. Theodore P. Dykstra, Bureau of Plant Industry, Soils, and Agricultural Engineering, may have profoundly altered the course of China's history!

The Irish potato has long been an important crop in parts of China and provides the main diet for more than 50 percent of the population in the northwestern Provinces. Until recently, however, no systematic effort has been made to improve this crop. Recognizing the importance of the potato in the solution of its food problem, the Chinese Government, in 1942, asked us to send them a specialist in potato growing to help develop a national potato-improvement program in China. Dr. Dykstra was the man picked for the job, and in the fall of 1942 took to China potatoes of 52 of our outstanding varieties from various parts of the country.

When these were grown and harvested, four were outstanding: Sebago, Warba, Chippewa, and Houma, all developed in connection with the National Potato Breeding Program carried on cooperatively between USDA and the State experiment stations. Dr. Dykstra immediately sent for 100 pounds of each of these varieties which promptly went to him in China and have been used as the nucleus of a seed-potato industry there. The program shows so much promise that the Chinese Government has already invested more than \$2,000,000 (Chinese currency) in the work.—JOHN A. FERRALL, PISAE.

FSA's committeemen

WHEN a farmer turns to the Farm Security Administration for aid he really puts his case in the hands of sympathetic, common-sense neighbors, the county FSA committees of local men (and women), who work with the local supervisor. Chosen from the county's most progressive farmers, these committeemen are appointed by FSA State directors under authority of the Secretary. All must be resident farmers and one of the three, in counties having ten or more borrowers, must be or have been a tenant operator of a family-type farm.

In counties with fewer than 10 borrowers, 1 committeeman works with the committee of an adjacent county.

Serving a day or two monthly, these 8,860 members and alternates render invaluable service in determining the eligibility of applicants and reviewing the progress of borrowers. Before the loan is made, the committee must certify that the family cannot get the necessary credit from any other source on reasonable terms. Only last year 24,996 low-income families were certified for new rehabilitation loans.

Each year the progress of the borrowers is reviewed. There is a scheme by which families who have been on the rehabilitation program three crop years or longer can be "graduated" to private credit sources. Last fiscal year more than 78,000 families paid up in full all they had borrowed. If progress is slow, committee members can often find the reason and rectify things, though some families have to be dropped as unamenable to rehabilitation. The committees certify both the eligibility of borrowers and the value of farms bought in the tenant-purchase program, more than 38,000 tenants and sharecroppers having so far gotten 40-year loans to buy farms.

Much resettlement-project property has been sold on the same terms as the law provides for tenant-purchase loans, the committeemen being called on for help. This liquidation is about complete. The regular FSA committee, with an extra businessman member who is preferably a veteran, also certifies veterans as eligible for loans under the GI bill for the purchase of farms or farm equipment. Nearly 3,000 businessmen are now cooperating on this special assignment which has no direct FSA connection.

In recognition of their increasingly important work, FSA has been holding special schools for committeemen this fall. It has also just issued a 65-page handbook for their use.

Equatorial shivers: Wonder if H. H. Bennett, Chief of Soil Conservation Service, remembers his trip to Ecuador in 1923—he was then in the Bureau of Soils—when he wrote: "There was nothing particularly striking about the Equator, except that one member of the party, while standing on it, instead of sweltering in a hot equatorial sun, shivered beneath the folds of an overcoat." P. S. Altitude about 10,000 feet above sea level, latitude 0°, longitude 78°26'.

Food note: An American recently arrived in Great Britain reports that the British basic weekly ration consists of enough butter for six slices of bread and twice that much margarine; a piece of cheese about the size we serve in hors d'oeuvres, tea enough to make six potfuls, a cup of sugar, four strips of bacon, a dab of lard, and 23 cents worth of meat. The milkman leaves a sample twice a week and each person gets a fresh egg every 4 weeks.

Brief but important

Commodity assignments: Administrator's Memorandum No. 15, issued October 5 by the Production and Marketing Administration, lists alphabetically the commodities handled by PMA, indicates the branch to which each is assigned, also lists by branches the commodities assigned to each, and finally shows the joint responsibilities of branches for certain commodities. Procure from PMA.

In Blacksburg: During a visit to Virginia Polytechnic Institute the editor talked long with S. W. Bondurant, of Soil Conservation Service, a former fertilizer man who no longer regards the USDA as a mere necessary evil. Once inside, he assayed the Department's true value and found it high. Such converts from outside business to bureaucracy often make the most potent evangelists for the good in Government service. We also talked with John A. Lannon of the State Production and Marketing Administration (former AAA) set-up of about 80 employees, and to Joe Hardy, PMA information man, who himself gets out a mighty fine newsletter for the State's committeemen.

REA booster: Experiment Station Director A. W. Drinkard, Blacksburg, Va., is strong for the activities of the Rural Electrification Administration, which, he says, has done great things in his State. Director Drinkard has on his staff an active group of research workers whose achievements rank well up among those of experiment station personnel the Nation over.

Yaukey, Goodhart, and Truman to Japan: Three Department employees have been chosen for an interesting and unusual mission. Jesse B. Yaukey, statistician of the United States Public Health Service now assigned to the Farm Security Administration, and Dr. Robert S. Goodhart, head of the Industrial Feeding Division, Production and Marketing Administration, have been detailed by USPHS to the Strategic Bombing Survey, and have left for Japan to help survey bombed areas there. Mr. Yaukey, who has been commissioned a lieutenant commander for this assignment, has lived in China and visited Japan on several occasions. Dr. Goodhart will make nutritional surveys. Dave Truman, of the Bureau of Agricultural Economics, has been detailed to the War Department to be assistant director of the bomb-damage survey party.

Abridged Chronology of Agriculture's Part in the War: This USDA Document No. 3 has been revised, put into final shape, and brought down to November 1. It tells briefly when it happened and what happened, if the event concerned our USDA, in straight chronological order. It is not likely that it will be further revised or that additions will be made. Available from the USDA editors; quantities limited.

United States Regional Vegetable Breeding Laboratory: MP 578, issued in October and entitled "Breeding Better Vegetables for the South," gives a comprehensive account of the objectives and accomplishments of this Bankhead-Jones Laboratory near Charleston, S. C. Similar bulletins will be issued later to tell about each of the other eight labs.

Foreign food programs: Secretary's Memorandum No. 1130, October 19, assigned, to a temporary new unit in the Production and Marketing Administration to be known as the Foreign Food Programs Branch, functions and employees transferred to Agriculture from the Foreign Economic Administration by Executive Order 9630, September 27, until assigned and detailed to other organizational units in PMA or the Reconstruction Finance Corporation, as seems best. PMA Administrator's Memorandum No. 1, Revision 1, Supplement 3, October 22, established this branch at the close of business October 20, with Jesse B. Gilmer as its acting director, in addition to his other duties.

Unique experiment: Dr. Mildred Tate, head of Virginia Polytechnic Institute's home-economics department, told us the other day about the unique experiment being carried on at Konnarock, Va., by staff members of the TVA, State health department, Virginia experiment station, and VPI home-economics department. They are making tests on two groups of farm families, one of which gets plenty of fertilizer and one of which gets none, to determine the effect upon the health and nutrition of farm people of using sufficient fertilizer on the soil. The approach is very novel, the possibilities are large, but insufficient progress has been made as yet to permit drawing conclusions. Naturally the families which get no fertilizer are the more reluctant to cooperate in the experiment, but they do extremely well considering.

D. F. J. Lynch: Director Lynch, of the Southern Regional Research Laboratory, died October 15 in New Orleans, having held the post since 1938 when the laboratory was established. He was responsible for development of a method to produce cellulose commercially from sugarcane bagasse which received world-wide attention. Urgent war-time research had taken its toll of him as of so many others since 1941.

Nine pounds of penicillin, please: Of course that isn't part of your order to the corner drug store. But, in spring 1945, about 13 U. S. and Canadian penicillin plants, representing a 20-million-dollar investment, were producing nine pounds of the drug daily, enough to treat a quarter of a million serious cases a month. This drug, for the mass production of which our Northern Regional Research Laboratory was so largely responsible, has saved not only thousands of lives of fighting men, but many thousands of their arms and legs also. Prices also have declined to but one-tenth—in some cases only one-fortieth—of what they were originally. All this explains why we say that the Peoria Laboratory has paid all the expenses of all the regional research laboratories several times over, yet each laboratory can show that it has more than paid for itself besides. Unfortunately for USDA Dr. Robert D. Coghill, who directed our penicillin drive, is being lost to industry at a big salary.

FS in Germany: Forest Service did not tell us, but Science did, that Director Carlile P. Winslow and eight staff members of its Madison (Wis.) Forest Products Laboratory were in Germany investigating the industrial and technical secrets of that country's forest-products industries. Specifically, they were

looking into cellulose products, wood sugar, ethyl alcohol, feeding yeast, and other wood products that helped supply Germany's war machine—also new methods of lignin utilization, wood treatment, timber construction, and seasoning and preservation of wood. Reichsmarshal Hermann Goering boasted that Germany depended heavily upon her forests for war materials. FS will find out how and why. Many new and improved techniques of great peacetime value are being discovered.

33rd degree: Secretary Anderson received the thirty-third degree of Masonry at a Scottish Rite dinner at the House of the Temple in Washington, October 19, along with President Truman, Generals Arnold, Lear, and Doolittle, and many others less in the news these days.

Dairy-herd improvement: Our Bureau of Dairy Industry has had a great deal to do with dairy-herd improvement in this country that has paid dairy farmers in cold cash by increasing the average production of their cows and teaching them how to cull out unprofitable animals. The story is told in FB 1974, by J. F. Kendrick, of the Bureau of Dairy Industry, entitled "Dairy-Herd-Improvement Association Program" and issued in August.

Spoils system? John Fischer, Rhodes scholar, formerly in charge of Farm Security information, now an editor of Harper's Magazine, launches a vigorous attack on Civil Service in that periodical for October. He actually advocates return to a modified form of the spoils system. Whether we agree or not it would repay us to read what he has to say.

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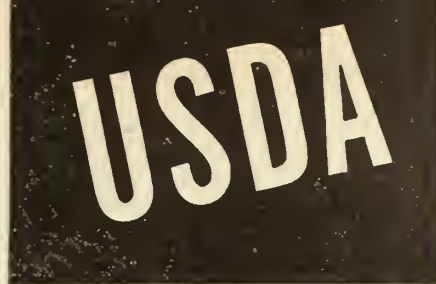
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FOR DECEMBER 10, 1945

Supply. His capacity for work and his knowledge of people in industry helped to bring business into an understanding relationship with the Government. Mr. Brenner returned to the Sea Pride Packing Corp. in San Francisco.

Mr. Brenner's successor is H. C. Albin, who was serving previously as an assistant director of the branch. Milton Briggs, also an assistant director under Mr. Brenner, now assumes the duties of both assistant directorships.

Fear leaves the farm

FEDERAL crop insurance "came back" this year. The program had been in operation for wheat farmers in 1939-43 and for cotton farmers in 1942-43. However, in 1944 administrative funds provided only for the liquidation of outstanding insurance. Then last December Congress gave the program the "go" signal. Despite the limited time available and the handicaps of changing back to an active status, the Federal Crop Insurance Corporation sold insurance contracts covering 1945 crops of cotton, spring wheat, flax, corn, and tobacco on 200,000 farms.

Legislation came too late for 1945 winter wheat already seeded, but the corporation has written insurance for 1946 winter wheat for approximately 350,000 farms. The present legislation provides for trial insurance on additional crops to form a basis for additional programs. These experimental programs envision new horizons in protection for growers.

Federal crop insurance protects against losses due to unavoidable causes. Cotton, wheat, and flax farmers are insured against loss of yield, not income—so many bushels or pounds per acre—at either 50 or 75 percent of the long-time average yield for the farm. Under trial programs for corn and tobacco, one plan offers 75 percent protection against loss of investment in the crop; another, on corn, protects against loss of yield and is similar to the plan for wheat, cotton, and flax. Tobacco may be insured against loss of yield and quality, determined in dollar value.

Premiums established are adequate to cover average crop losses and provide a reserve against unforeseen losses. Administrative costs will be met by annual appropriations. The Government has provided a capital fund to absorb year-to-year fluctuations in losses. Loan and other price-supporting programs fail the farmer if he loses his crop. Crop insur-

The Secretary

THE following impressions of Secretary Anderson are recorded for the benefit of USDA workers who may never see him, and were drawn from his appearance before a group of employees on November 7 and from attendance at his press conference of the following day.

The Secretary is tall, well proportioned, and of distinctly pleasant appearance. He somehow bears a resemblance to Franklin D. Roosevelt as we remember seeing the late President years ago when he was Assistant Secretary of the Navy. Secretary Anderson also has a wholly admirable platform presence. He is a fluent speaker who talks quietly, clearly, distinctly, without any regional twang, and in a well-modulated, fairly deep voice which carries well.

His most characteristic gesture seems to be a partly abortive raising of his left hand. His most natural change of expression is to break into a warm, genuine smile which conveys friendliness and sincerity. His manner is easy and informal. He frequently displays a lively sense of humor, yet gives one an impression also of firmness of purpose and superior intellectual grasp. What he says comes right from the shoulder.

Above all, he impresses you as fair and square, honest and dependable. He is simple, direct, wholly unambiguous, and not given to evasion in the slightest degree. He evinces deep study and full mental grasp of the many problems which engage him. The moment he opens his mouth you are aware that he is thoroughly human, possesses an attractive and vital personality, and is a cultivated American in the best sense.

His memory, especially for statistics, but also quite generally, is excellent. He never glosses over details; they are meaningful to him. He is a stickler for the facts. His favorite question is, Why? and he wants a factual answer.

On both above-mentioned occasions he flatly and finally denied rumors of friction between himself and Under Secretary Hutson, who sat nearby. He explained that Mr. Hutson's appointment as Production and Marketing Administrator had been temporary from the start and was intended to last only until a capable PMA head could be found. He stressed his need of Mr. Hutson as full-time Under Secretary. He added that, while major PMA reorganization had been concluded, many minor adjustments must yet be made both in Washington and in the field, because you can chart so many things on paper which will not work out in practice. These adjustments are being made as rapidly and painlessly as possible.

The release handed out at the November 8 press conference concerned U. S. food allocations to foreign countries for the final quarter of 1945. If you want the details, write or phone (6114) Press Service and ask for 2066-45.

Hail and farewell

THE Production and Marketing Administration lost two of its able administrators about November 1. Richard W. Maycock, Assistant Administrator for Fiscal and Administrative Control and Vice President of the Commodity Credit Corporation, came to the Department in 1940. One of the youngest men ever placed in a top administrative spot in Agriculture, he has been characterized as "a man of integrity and a very able administrator." Mr. Maycock is now with Macy's Department Store in New York.

Maurice L. Brenner, Director of PMA's Special Commodities Branch, came to the Department as a consultant on fish in 1942; became Chief of the Procurement and Price Support Branch and later Deputy Director of the Office of

ance puts farming on a business basis. It enables the farmer to meet the hazards of weather and high water, devouring insects, fire, and sick crops. It takes fear out of farming. FCIC operates as a bureau in the Production and Marketing Administration, the Secretary of Agriculture being chairman of its Board of Directors.—GRACE E. M. WAITE, PMA.

Practical scientist

TALL, thin, stooped, gray-haired—but alert and interested in human kind, considerably resembling a typical high-grade farmer—Prof. W. E. Garnett, of Virginia Polytechnic Institute and the experiment station at Blacksburg, is an unusual social scientist. For he is one rural sociologist who believes that the results of social-science research must be implemented in practice before the project can be regarded as in any sense complete.

Garnett's studies of Virginia's marginal population, rural manpower, and disadvantaged groups have long been outstanding. Especially recommended is Bulletin 335, of the experiment station, entitled, "Virginia's Marginal Population—A Study in Rural Poverty," by Garnett and Allen Davis Edwards. Edwards' own study, Technical Bulletin 92, on Virginia's Rural Manpower, also should not be overlooked, discussing as it does population pressure and potential sources of labor supply.

Then there is the fine study of Disadvantaging Factors in the Life of Rural Virginia Negroes, in the preparation of which Garnett assisted Prof. Harry W. Roberts, of sociology, at Virginia State College; it appeared in the Gazette of this college for February 1945. But Garnett wants to do more than mere research. He wants to help solve the problems analyzed. He and others of his staff have made excellent studies of the rural medical-care situation in Virginia. See, for instance, Bulletin 363 by Leland B. Tate.

In the VPI Bulletin for February 1945, Garnett discussed Rural Medical Care on the March. He has also been instrumental in the issuance of popular leaflets and mimeographed materials which will enable the people of his State to better their medical-care system. He has long been secretary of the Public Opinion Committee on Rural Health and Medical Care. He works constantly and indefatigably to better the unfortunate conditions his researches disclose. His is a life of scientific endeavor and dedication to the public good combined.

Portuguese vets meet

THE Bureau of Animal Industry and the Office of Foreign Agricultural Relations have assembled material for display in a veterinary exposition to be held in Lisbon during January 1946. The event, sponsored by the Portuguese Society of Veterinary Medicine of that city, will include exhibits that portray recent advances in veterinary science in various countries.

Responding to a request from that Society, received through the American Embassy in Lisbon and the State Department in Washington, USDA has furnished small exhibits, pictorial matter, and publications describing current veterinary services and research in the United States.

"On deafened ears"

THE EDITOR tells me that some of you are expressing interest in the man who gets so much stuff printed in the paper. He's tried to persuade some of my associates to "spill the beans," but without success. So I told him I'd do it; I have no modesty.

I'm a writer because I lost my hearing 30 years ago! I'd been hard of hearing since standing too near a cannon during a Fourth of July salute when I was 13. Not much attention was paid to hearing impairment 50 years ago, so nothing was done about it. Years later, when I passed a Civil Service examination for stenographer with a rating of 98.50 on the 140-words-a-minute test, no question was raised about my hearing; certainly not by me. In September 1904, I got a job with the Civil Service Commission itself. In 1905 I went with General Greeley, of Arctic exploration fame, and later in the year with John M. Hancock (co-author of the recent Baruch-Hancock plan) in the Navy Department. I came to the Department of Agriculture in August 1906.

One Saturday afternoon in the summer of 1915 I walked to the Washington Post baseball scoreboard and watched and discussed the game. Then I went home, put a phonograph record on the machine—and discovered that I couldn't hear a sound! The following Monday morning I tendered my resignation, adding, as an afterthought, "I could handle most of your correspondence without dictation." The chief, Dr. Walter T. Swingle, grabbed a pencil and wrote, "I've been trying to get you to do that for the past 5 years!" So, instead of re-

signing, I remained as correspondent and executive clerk—a promotion.

When I found that I could write letters, I thought I could write anything. Editors disillusioned me, but during the past 30 years I've written and sold some 1,200 articles and stories to magazines and newspapers. Since 1929 I have been editor of the Semi-Monthly News Letter (now temporarily suspended) of the Division of Fruit and Vegetable Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering. A couple of years ago some optimistic friends suggested my name as PISAE correspondent for USDA. So I write the stuff, experts check it, and, sometimes, USDA prints it. Officially, I am a CAF-6 clerk in the Division's section of information, in charge of publication files, manuscripts, records, and distribution, with writing merely incidental.

As to my philosophy concerning deafness, if you are interested, fate has given me a defense against it—ignorance. I'm not smart enough to realize that it is a handicap to me. I see, of course, that my deafness causes my friends a good bit of annoyance, but after all it is not hard for me to muster sufficient fortitude to bear their troubles patiently!—JOHN A. FERRALL, PISAE.

(And most of what John doesn't hear isn't worth listening to anyway!—ED.)

GS publication

THE Department of Public Administration, Graduate School, has just issued a publication, Lectures on Administrative Regulation, analyzing the regulatory process in several Federal agencies. These significant and timely lectures include:

Administrative Regulation, Ashley Sellers; Regulatory Procedures in the National War Labor Board, Lloyd K. Garrison; The Development of Regulatory Procedures in Agricultural Marketing and Food Distribution, C. W. Kitchen; Regulatory Procedures in the Office of Price Administration, Jacob Rosenthal; Regulatory Procedures in the War Production Board, Thomas C. Blaisdell, Jr.; Regulatory Procedures of the Coal Agencies in the Department of the Interior, Fowler Harper; The Role of the Administrator in the Regulatory Process, Paul H. Appleby; A Twelve-Point Primer, Joseph B. Eastman.

Copies may be obtained from GS, 1031 South Building (phone 6337) for 50 cents.

Virginia Negro farmers

LIMITED HELP from the Farm Security Administration and Extension Service is one hopeful sign in an otherwise gloomy outlook for Negro farmers in Virginia, according to a study published recently by Virginia State College (land-grant) for Negroes. The study, entitled "Disadvantaging Factors in the Life of Rural Virginia Negroes," is a condensation of Harry W. Roberts' 400-page dissertation for a doctorate degree at Yale University in 1942. In preparing the brochure, Dr. Roberts had the editorial assistance of William E. Garnett, rural sociologist at the Virginia Agricultural Experiment Station.

The study describes some of the enormous disadvantages which the Negro farmers of Virginia have faced and still face in their struggle for land and home ownership. Among these are: An unfavorable credit system, one-crop farming, poor land, lack of livestock, handicaps in marketing their products, lack of off-farm employment opportunities, poor housing, inadequate diets, inadequate facilities for health, education, and recreation, poorly trained ministers, and mental and spiritual depression which stems from having to live as subordinates on the fringes of community life. The last factor looms large in the researcher's calculation of the important deterrents which have served to hold the Negro farmer in Virginia close to poverty.

Through migration, individual resistance, development of self-help organizations, and through aid made available by FSA and Ext., the Negro farmer of Virginia has attempted to solve his problems with only partial success. The findings seem representative when one compares them with similar studies, especially with respect to income and farm tenancy in the rest of the South. And, despite the tremendous disadvantages which Negro farmers in Virginia face, their gloomy plight seems far more hopeful than that of Negro farmers in many other States. For example, only a third of the Negro farmers in Virginia are tenants, while nearly 90 percent of those in Mississippi are tenants, and nearly 80 percent of all Negro farmers in the United States are tenants or sharecroppers. Dr. Roberts' investigation brings into sharp focus the complex of factors that hinders Negro farmers from making a larger contribution to American welfare.—SHERMAN BRISCOE, INF.

Salaries

SECRETARY ANDERSON appeared before the Senate Civil Service Committee, which is studying the proposals for a 20 percent increase in the pay of civil-service employees as well as higher salaries for Members of Congress, judges, and top administrative officials. It was in November, but readers in the field may find something of interest in the following from Jerry Kluttz's column in the Washington Post for November 8, where-in he discussed the Secretary's testimony.

Secretary Anderson said the most discouraging aspect of his job was his inability to hold good people to their jobs. He cited the cases of Eugene Auchter, Richard Maycock, and David Meeker—all able men—who had left his Department after years of services for the greener financial pastures of industry. He said Tom Stitts, his milk expert, and others on his staff, could walk out of Government today into much better paying jobs. He said he was begging and pleading with them to stay. Anderson pointed to the vast responsibilities of Federal officials. As an example, he cited the fact that his Commodity Credit Corporation has an inventory of foods and grain valued at \$1,250,000,000, yet he can pay the official in charge only a third of the salary the Marshall Field department store pays its men to keep tab on its mere 20-million-dollar inventory. He said bad handling of its potato surplus problem could cost the Government from 15 to 25 million dollars and that he should be able to pay a good man a decent salary to handle that job.

To start an argument

TODAY farmers quite generally complain about labor shortages. Many reports received from men still in or about to leave the armed forces indicate that the farm boys much prefer to become city boys if they can. Much evidence has been accumulated to denote that a fairly decent office or industrial salary almost always induces a farm worker to leave the soil and take a city job. Even experiments in subsistence farming tend to show that, whenever the income of a part-time farm family from other sources attains a certain level, their instinct and desire to derive part of their food from the soil is mysteriously assuaged.

What does this mean? Does it mean that we shall eventually restrict all commercial food and fiber production to huge factory farms, managed scientifically by competent superintendents, fully equipped with all the best technological implements and devices and operated by organized labor on an 8-hour day? For the farm-factory idea is not only appli-

cable to fruit orchards and wheat production. It has been applied successfully to truck farming by large soup and vegetable canners. It is widely applied in the poultry, livestock, and dairy fields. It is quite generally applicable.

If this occurs, however, it is reasonable to suppose that 2 million large-scale, fully equipped operators could produce all the marketable food and fiber we need, even if approximate full employment and normal export were achieved. What then happens to the remaining people on our farms?—and remember that during the war fewer farm workers than since 1870 produced over a third more food and fiber than in the average year of the 1935-39 prewar period. What becomes of the greatly disadvantaged "marginal population" in rural regions? Can industry absorb this excess? It seems unlikely.

Must a huge public conservation and reforestation program, which would add immensely to the national wealth, be invoked to employ these dispossessed people? Or is it a pipe dream to suppose that urban life will continue to drain heirs and potential workers from family-sized farms, thus making any attempt to maintain such farms an endeavor to preserve an anachronism? Who wants to discuss that? Who knows the answers?

Memo to secretaries

WE REGRET that, even after diligent search (mostly by other people), we could not find the source of the following material which, nevertheless, we think it expedient to bring to your attention:

A secretary is a person, usually female, whom the boss often tells everybody but her that he couldn't do without.

A secretary must know how to translate the boss's rambling dictation into statements which are crisp and straightforward and yet leave plenty of loopholes and side exits, so that he is pretty proud of himself when he reads what he thinks he dictated.

If the boss doesn't know something, he asks his secretary; if she doesn't know, she is dumb. The boss is not dumb for not knowing, on account of what has he got a secretary for?

No man is a hero to his valet, and no boss is a hero to his secretary. When a secretary realizes that her boss wouldn't be worth fifteen dollars a week without her, she has to console herself with the fact that she wouldn't get her thirty-five per without him.

If secretaries didn't need their jobs, half the bosses in the country would be washed up. If secretaries published their bosses' confidential memos, the other half would be locked up.

A secretary must know where her boss is every minute, so she can tell the right people the wrong place.

An office boy starts at the bottom and works up. A secretary starts as a secretary and works.

Brief but important

Let it not be said of us: An English woman, Frances Donaldson, who farmed during the 4 war years and then wrote a book about it, *Four Years Harvest*, thus dresses down British agricultural "technicians," or Government specialists: "I think there is no one so smug, so unreasonably conceited, so bigoted, and so invulnerable. * * * In order to strengthen his self-importance he is driven to obscure, to render exclusive and immeasurably difficult, that which he knows." Let it not be said of us.

Taos medical co-op: There is yet another story about the Taos County (N. Mex.) medical cooperative in the October 31 *Christian Century*, under the title, "Unto the Least of These." Farm Security Administration sponsors this co-op.

DeWitt C. Wing: Mr. Wing, who was for a quarter of a century editor of *Breeder's Gazette*, next with a New York farm paper, and thereafter entered Triple-A in its earliest days, is leaving the job he resigned from the Office of Information to take a few months ago. In Inf. he skippered the letter to farm-paper editors now operated by E. R. McIntyre. Mr. Wing left to handle information for Future Farmers of America in the Office of Education. He is now temporarily editing the *Agricultural Leaders' Digest*, the long-time editor of which, Estes P. Taylor, died November 23.

Archie Robertson again: A while back we mentioned USDA's former editor's book, *Slow Train to Yesterday* (Houghton, Mifflin Co.). Now we find that if you can't afford the price of the book, you can get a generous 10 cents worth, along with other intellectual and pictorial victuals, in *Life* for November 5—that is, if you have 10 cents and can wheedle anybody into selling you *Life*. Look for: Short-line Nicknames, U. S. Makes Fond Fun of Its Jerkwater Railroads, by Archie Robertson.

Grace E. Frysinger: Miss Frysinger, a member of Extension Service staff since 1918, and prominent in rural life activities for many years, has retired. In addition to her extension work, Miss Frysinger was United States delegate to the First International Rural Life Conference in Belgium in 1926, and represented Ext. at the International Conference of Rural Women's Organizations in Austria in 1930. As vice president for North America, she headed the United States and Canadian delegations of rural women at the meeting of the organization in London in 1939. She was the first woman to be president of the American Country Life Association. Miss Frysinger, a native of Rockford, Ill., expects to continue to live in Washington, D. C.

Lt. Col. Cleo L. Lash: The 1798th Service Command Unit, Station Complement, Headquarters Detachment, Veterinary Section, Fort Des Moines, Iowa, was awarded the Meritorious Service Unit Plaque in April 1945 "for superior performance of duty in connection with food inspection activities" and the efficiency and speed with which its personnel accomplished its duties, despite obstacles. Lieutenant Colonel Lash, in command of this section, has been continuously in the service of the Bureau of Animal Industry as a veterinarian since December 16, 1916, leaving for military service October 31, 1940, and returning to BAI July 1, 1945.

USDA's origins, structure, functions: At long last our revised USDA Document No. 1, now entitled "Origin, Structure, and Functions of the U. S. Department of Agriculture," and dated November 1, is ready for distribution. Ask for what you actually need, remembering that requests for more than 6 copies from any one source constitute wholesale orders from our standpoint, though we'll always do the best we can, given limited quantities for distribution. Phone (4842-4875) or, preferably, write T. Swann Harding, Office of Information, Room 423-E.

Vincent Nicholson dies: Vincent DeWitt Nicholson, Deputy Administrator of the Rural Electrification Administration, in Washington, died November 8 in St. Louis, at age 55. Mr. Nicholson joined REA 10 years ago as general counsel, and in 1942 became its first Deputy Administrator. Before joining REA, he had been a solicitor in the Department.

Two Secretary's memos: Memorandum 1027, Revision 1, October 24, asks that the Executive Assistant to the Secretary, Nathan Koenig, be advised promptly by telephone whenever members of USDA are to testify before Congressional committees, or are to consult with Members of Congress on important matters of concern to the Department. * * * Memorandum 1131, of the same date, wholeheartedly endorses the Department's policy on the reemployment of veterans as given in General Departmental Circular 53, October 9, 1944, saying veterans have legal rights for retention in the service when reductions in force must occur, and that, "It is the policy of the Department to observe the spirit and intent as well as the letter of the law dealing with veterans' rights."

Field workers, attention! Secretary's Memorandum 1132, October 26, established USDA councils in each State and county to succeed the USDA war boards, which carried on so patriotically and efficiently during the conflict. The main function and responsibility of the councils is to assist USDA agencies in the coordination of their activities. In general, the councils consist of the heads of the respective State and county offices, the State directors of extension and of the experiment stations, and certain other officials as indicated. Procure the memorandum itself for details. For further clarification of functions assigned to Production and Marketing Administration Field Service State offices, see Administrator's Memorandum 6, Amendment 2, October 17, reading it in conjunction with Administrator's Memorandum 6 of September 1. The memorandum concerns, in the main, assignment of price support, loan, subsidy, purchase, sales, and marketing programs to the Field Service Branch and the commodity branches, with special emphasis on field programs of the former AAA.

Bureaucracy again: The editor of *USDA* has a limited number of reprints of his article, in the main on this subject, entitled "People Are Just as Dumb as Anybody," in September *Antioch Review*. You will find a former USDA worker, "Jay Franklin" (John Franklin Carter), nestling nearby, his subject being The UNO and World Security. Also present, in same issue, is USDA's former consumers' counsel, Donald Montgomery, writing under the title, "Reconversion to What?"

Negro extension work: John W. Mitchell, field agent at Hampton Institute, Hampton, Va., has reported for 1944-45 on Extension Work Among Negroes in the South. Available from Extension Service.

Robot scientists? Will the mechanical age finally lead USDA to purchase robot scientists? Can research be performed mechanically by pressing a button, seemingly the last advance of technology? At the Massachusetts Institute of Technology there is a miraculous automatic calculating machine weighing 100 tons and including in its bewildering and bewitching array of parts 2,000 electron tubes, 150 motors, several hundred miles of wires, and thousands of relays. Give it the wind velocity, temperature, rotation of the earth, barometric pressure, height and speed of a hostile airplane, and a few other variables, and it will provide an antiaircraft battery commander with all the facts he needs to score a hit. This is done in a few seconds. Shall we eventually have similar machines, into one end of which we feed abstruse scientific problems while finished solutions, otherwise requiring years of research, drool out from a spout at the other? Watch your step, scientists!

On location: Universal Pictures has been shooting its new technicolor movie, *Canyon Passage*, on the Deschutes, Rogue River, and Umpqua National Forests of Oregon, under a "special use" permit from the Forest Service. The cast includes six horses, three mules, and also Susan Hayward, Dana Andrews, Andy Devine, and Brian Donlevy. Bob Putnam of FS was assigned as adviser to the Hollywood group. The story, from a novel by Ernest Haycox, concerns a man who ran a pack train from Portland to southern Oregon in the 1850's.

Notes for the Guidance of Authors: The Department of Extension Teaching and Information, Cornell University, Ithaca, N. Y., has just reissued the booklet of this title in its 1945 revised form. It merits your careful consideration. It bears the slogan, "The most important court of review, for both writer and editor, should always be the reader."

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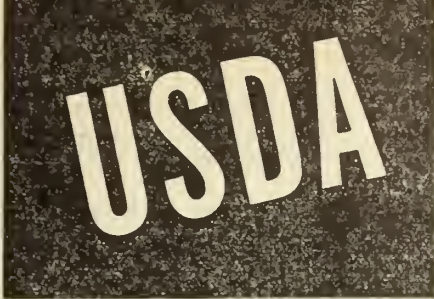
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FOR DECEMBER 24, 1945

Book on USDA

USDA, Manager of American Agriculture, a book by Ferdie Deering of the Oklahoma Farmer-Stockman, has just appeared from the University of Oklahoma Press. It runs something over 200 pages, with tables, graphs, and illustrations. It pretty thoroughly mulls over the USDA.

To be specific, the author thinks that the Department is a useful institution which has long been bogged down in malorganization. While his main conclusions were obviously drawn during the latter WFA-USDA days, he is not sure that even our scientific bureaus are properly arranged and their work integrated one with another. And he is positive that at the grass-roots, or county level, duplication of effort, overlapping, and multiplicity of offices lead to confusion and inefficiency.

Specifically, Deering thinks the USDA performs functions of only three kinds: (1) Administration of personnel, services, and regulatory laws; (2) research, including all types now carried on; (3) education and information, including extension work. He would therefore dissolve all the bureaus and agencies and completely reorganize along these three major lines. This proposal, however, appears to overlook various laws.

For, as you can see from USDA's mimeographed Abridged List of Federal Laws Applicable to Agriculture (No. 8), many of our activities and agencies have a legal status that cannot be tampered with by the Executive branch of the Government. We are doing what the legislative branch ordained that we do. Congress cannot and should not be ignored. The Department simply cannot be melted down and run into new molds to make it tidy. Moreover, many things can be charted on paper which simply cannot be performed in practice.

However, this is not to argue that you should omit Deering's book from your reading list. You should not. It is an intelligent job, given his standpoint, it is readable, and—more wonderful still—it is remarkably accurate in its details and factual statements. By all means get hold of it. It appears mostly to have been written before the August reorganization of the Department, though the author inserted material regarding this change.

Scientific personnel

AT THE recommendation of the Council of Personnel Administration, an inter-departmental Advisory Committee on Scientific Personnel has recently been organized. Dr. S. B. Fracker, Research Coordinator of the Agricultural Research Administration, is the USDA representative on the committee.

The committee advises regarding methods and means of facilitating the selection, training, advancement, retention, and recognition of performance of superior scientific and technical personnel in the physical and biological scientific work of the Federal Government.

At the instance of P. V. Cardon, Research Administrator, USDA inter-bureau advisory group has been set up to bring together the suggestions and advice of scientific officers and employees in the Department. The chiefs of the following agencies have designated representatives: Agricultural Research Administration, Bureau of Dairy Industry, Bureau of Agricultural and Industrial Chemistry, Bureau of Entomology and Plant Quarantine; Bureau of Plant Industry, Soils, and Agricultural Engineering; Bureau of Human Nutrition and Home Economics, Office of Experiment Stations, Forest Service, Soil Conservation Service, Office of Personnel, Library, and Graduate School.

U. S. farm future

IN AN ADDRESS entitled "Agriculture Looks to the Future," Under Secretary Hutson gave the Indiana Farm Bureau an excellent exposition of factors prominent in the farm's second postwar adjustment period in a little more than 25 years. The talk was delivered November 15. For complete text get release 2112-45 from Press Service (phone 6114).

The discussion centered on the present productive capacity of the farm plant and the probable size and kind of market for which it will now produce. Despite individual decreases, the total production of cash crops in 1944 and 1945 averaged 15 to 20 percent above prewar levels. It seems safe to count on an over-all farm productive capacity at least one-fourth greater than at the beginning of the war, even when allowance is made for unfavorable weather. To maintain farm production at that level, we must have high domestic consumption and a healthy export trade.

Current domestic consumption per capita is estimated at 8 percent above prewar, and it could have risen to 10, if demand could have been met in full under wartime stresses. Can such a rise be maintained at peace? That depends on full employment and consumer education and on improved diets, with resultant greater use of highly nutritive foods. It would also involve assurance of adequate diets to low-income groups, and a liberal unemployment compensation policy. The alternative would be a system of production and marketing controls that might eventually extend over a major segment of our agricultural economy. Mr. Hutson also said:

Even with a high domestic consumption level and substantial exports, it will still be necessary for this country to adjust the production of some individual commodities * * * American farmers like to produce. Prices of most products are protected at 90 percent of parity. Our own people and people in other parts of the world need their products. It is simple common sense for us to take all reasonable measures to plan for full production and distribution in 1946.

Food from wood: Dr. Friedrich Bergius, Nobel Prize winner, recently told one of our agricultural attachés in Austria about two factories which produced 440 short tons of protein from wood monthly, to help feed the German army. Concentrated hydrochloric acid was added to wood or to vegetable residues—including cellulose—to form wood sugar, upon which a fast-growing yeast was cultured. This yeast contained 50 percent of protein similar to, and as easily digested as, animal protein. About 2 pounds of it equalled 5½ pounds of meat in this respect.

Moving days

DID YOU ever realize that, with all the Department reorganizations and office moves during the last 12 years, there has never been a comprehensive reorganization of space along logical lines? That is because the task would be so tremendous. The USDA occupies approximately 1,750,000 square feet of space in the Administration, South, and Annex Buildings in Washington, D. C. But now the war is over, the Secretary is organizing the Department to carry out the tasks that lie ahead. To do that job effectively, he has called for an overhauling of our space situation.

Well, that is just what we are doing and you know what happens when you do that at home—you're right, you arrange things along more logical lines and *get rid of the excess things that are nice to have around but just take up space*. I wish that all Agriculture employees could see the big space charts in Room 107 Administration Building. But since that is impossible, I'll try to tell you just what's happening.

The Secretary had three primary objectives in mind when he ordered the Office of Plant and Operations to make an exhaustive survey of the space situation in the three buildings mentioned. The first was to consolidate and organize the bureaus into more logical space patterns. For example, the Production and Marketing Administration was located in the first to the seventh wings (*two city blocks long*) from the basement to the sixth floor of the South Building; hereafter PMA will operate in a vertical pattern in the west end of that building. The second objective was to study space utilization and see if, through accomplishing the first objective and then squeezing up a little bit, we could not achieve yet a third objective, which was to provide space for the return of the Rural Electrification Administration from St. Louis and the Farm Credit Administration from Kansas City.

So, if you are asked to operate in a little less space than that to which you have been accustomed, the reason is that the Secretary needs to get these decentralized agencies back to Washington as soon as possible. The task is tremendous, but I know that everyone in this big Agriculture family is doing his utmost to help the Secretary accomplish these important objectives. By the time this USDA issue reaches your desk, most of REA will either be on its way or will have reached Washington and be housed in the South Build-

ing. FCA will come after that. Most of the employees are being moved, but everything is being handled according to a prearranged schedule so that confusion and disturbance of work are being held to a minimum.

Incidentally, if you field people ever feel outraged because you have to move every so often, it may console you to know that Washington is getting a gigantic dose of the same as these lines are written.—ARTHUR B. THATCHER, *Chief*, P. & O.

"Teepee weep" closes

THE TIMBER Production War Project, launched in 1943 to aid in getting out more war-needed timber, was brought to a close in November. The project was organized by the Forest Service at the request of WPB. Several other Federal agencies, State forestry departments, and others participated actively.

"Teepee weep," as the project was called by foresters, stimulated the production of more than 8 billion board-feet of timber for war needs that otherwise might not have been produced. It was organized when demands for timber products were mounting and output was decreasing. Despite urgent war needs, thousands of small sawmills were idle or operating only part time because of wartime difficulties.

Project foresters often showed notable ingenuity or initiative in helping operators meet problems of labor, transportation, and equipment shortages and in bringing timber owners and operators together. An example: When one mill closed down because its boiler had been condemned, the project forester got hold of the State boiler inspector himself, scurried far and wide for new parts, got the inspector to take off his coat and help him repair the boiler, and had the mill going again in short order.

TPWP trained 25,000 war prisoners for woods work, and was active in training for the same purpose labor imported during the war from Barbados, Honduras, and Jamaica. The project covered 29 States, mostly east of the Great Plains.

Peak personnel numbered 910, of whom 188 were full-time. The remainder were in agencies that cooperated with FS in the project—State forestry services, Extension Service, Soil Conservation Service, and educational institutions. The field men worked under the direction of Howard Hopkins of FS. Most of them have now returned to the jobs from which they were drawn from teepee weep.

Rural health

THE following is quoted from an editorial in the British Medical Journal for September 15, 1945:

From the analysis of the weekly expenditure (in a little rural section studied by the Agricultural Economics Institute of Oxford) of 45 families, it appears that the agricultural laborer spends just half a crown a week on medical services and medical and hospital insurance, the professional worker just under three shillings, and the farmer a little over four—in each case about one-third of what they spend on drink and tobacco. * * * Hospital contributory schemes are very popular, and in rural districts of the county (Oxfordshire) their membership reaches 80 percent.

You may be interested in Country Planning, a Study of Rural Problems, to which reference is made above. It appeared from Oxford University Press in 1945. Here are some other references on health, mostly rural, which are closer to home and would repay reading:

The Good Health Issue (May 1945) of the Southern Patriot, published by the Southern Conference for Human Welfare in Nashville (3), Tenn.; Planning the Rural Hospital and Health Center, by Bedford W. Bird, Regional Chief, Health Services, Farm Security Administration, Portland, Oreg., and Paul H. Landis—ask for Popular Bulletin 181 of the Washington Agricultural Experiment Station, at Pullman; The Farm Security Administration Dental Program of Randolph County, Ga., by Margaret Landis and M. R. Hanger, Bureau of Agricultural Economics, and Philip W. Woods, FSA; and Planning Medical Care in the Postwar Period, with Particular Reference to Alabama, by Dr. John Newdorp, USPHS and FSA Regional Medical Officer at Montgomery, Ala. Procure copies from the authors.

Equality for Agriculture

The Department of Agriculture today computes parity figures or comparable prices for 157 commodities. Of this total only 61 have a 1910-14 base period, although commodities in this group make up 82 percent of the value of all farm products. Seventy-three commodities have a 1919-29 base, 21 use some other combinations of the years in the 1920's, and 2 use 1935-39.

The quotation is from Secretary Anderson's speech of the title given above, delivered before the National Association of Commissioners, Secretaries, and Directors of Agriculture, at Memphis, November 12. [Ask Press Service (phone 6114) for 2082-45.] The speech indicates how complex the parity concept has become in recent years, until it has finally all but lost contact with reality. The Secretary therefore advocates a modernization of the parity concept.

He interestingly compared agriculture and industry as they were in 1910-14

with their status today. He paid tribute to George Peek, Henry Wallace, Chester Davis, M. L. Wilson, and other farm leaders who evolved the parity concept and helped to see that it was written into the original Agricultural Adjustment Act. He finally discussed three questions. How shall the farmer's rightful share of the national income be defined? How can a parity formula be devised which will yield the defined rightful share of income to farmers? By what methods shall parity goals be reached?

The speech is informative, suggestive, and highly readable. If you wish painlessly to acquaint yourself with some over-all thinking at the highest policy level, study it carefully by all means.

Dove to Cushing in EPQ

QUIET-SPOKEN, gentle-mannered Dr. Walter E. Dove, one of the leading medical entomologists in the United States, has followed the beaten path to commercial employment. He resigned November 1 to enter private industry. The Department's extraordinary DDT project at Orlando, Fla., was under his direction. Here DDT was developed as a mosquito-control agent; MYL and DDT as louse powders; and many new insect repellents.

Dr. Dove served in the Bureau of Entomology and Plant Quarantine from July 1913, except for brief periods completing his education and in the Air Service during World War I. His work was chiefly on insects affecting man and animals and in directing titanic grasshopper-control operations. The Division of Insects Affecting Man and Animals, which he headed during World War II, investigates both disease-carrying and annoying insects which attack man, as well as those injurious to household supplies, fabrics, drugs, etc., and which annoy or injure farm and range animals, poultry, birds, and wildlife.

The returning chief of the division is Col. Emory C. Cushing who, before joining EPQ in 1928, was on the staff of the Texas Agricultural Experiment Station. His work in EPQ has been concerned chiefly with insects affecting man and animals. He served for several years as assistant leader and then as leader of the Division. He returned to EPQ at the expiration of his military leave and resumed direction of the Division. While serving in the Army Sanitary Corps in May 1945, Cushing was awarded the U. S. Army Typhus Commission Medal for "unusual ability in developing and ap-

plying modern methods of typhus control."

Yearbook to reappear

THE YEARBOOK of agriculture, a war casualty since 1942, is to reappear. Preliminary planning for the next edition is already under way by a Yearbook Committee under the chairmanship of Assistant Research Administrator W. V. Lambert. The subjects of this 1943-47 Yearbook (so designated to cover the interim years) will be new, particularly wartime, achievements of agricultural research. It is to be an intensely practical volume useful to farmers.

The book, really an anthology by three or four score Department specialists, will deal with all phases of our scientific work. Emphasis will, in each instance, be placed on practical use of the information by farmers, gardeners, nurserymen, students, USDA employees, State agricultural workers, and everyone who has a home and garden. Startling new developments—DDT, penicillin, herbicides, amino acids, balanced cattle and poultry rations, diet supplements, new strains and varieties of plants and animals, and many other things—will have their place.

The new editor, replacing Gove Hambridge, editor of so many of our extraordinary Yearbooks, is Alfred D. Stefferud, a product of St. Olaf College and the Universities of Iowa, Berlin, and Vienna. After working for the Associated Press a decade, in Des Moines, New York, Berlin, and Vienna, he joined the staff of the Bureau of Agricultural Economics in 1939. There he edited the Land Policy Review and certain special reports, including that most excellent monograph, *Technology on the Farm*. He left this job to become contributing editor of *Time* and later Chief of OWI's Central and Southeastern European Area. He returned to the USDA Office of Information in September.

Ten million dollars

AGRICULTURAL Engineering tags along at the end of the name, Bureau of Plant Industry, Soils, and Agricultural Engineering, not to indicate its relative importance in the organization, but merely because it happens to be the work most recently added to the Bureau. As a matter of fact, the tail frequently wags the dog.

There is the matter of the cotton drier, for instance. Cotton is a bit peculiar in that it is a crop that still belongs

to the grower while it is being processed, whereas most farm products leave the ownership of the grower before any processing starts. Thus inefficiency in the ginning process, for example, costs the cotton grower heavily. That's where Agricultural Engineering steps in. Some years ago Charles A. Bennett, who has been in charge of the mechanical engineering activities at the U. S. Cotton Ginning Laboratory at Stoneville, Miss., since its establishment in 1930, came up with the Bennett-process cotton drier—usually called, at his insistence, the "Government process" drier.

In private industry, the royalties on this invention would have long since made Bennett rich, but being one of Uncle Sam's boys, he turned the process over to the general public—free, gratis, and for nothing. Since it has been found to increase the value of ginned cotton from 70 cents to as much as \$2.50 per bale and is now installed in gins with capacity for ginning half the American cotton crop, a conservative estimate of the value of the drier to the cotton industry would be somewhere between \$5,000,000 and \$10,000,000 a year!

That isn't all of the story, either. Bennett was given the McCormick Medal for 1945. This award, made annually by the American Society of Agricultural Engineers, was provided for in 1931 by descendants of Cyrus Hall McCormick, quite an agricultural engineer himself, inventor of the self-rake reaper, among other things. The medal was awarded to Bennett, not merely for his invention of the cotton drier, but for "exceptional and meritorious engineering achievement in agriculture" and because of his leadership in engineering research. Get that? This invention was simply a run-of-the-mill job for Bennett; merely a part of the day's work. What-taman!

You can't get away from it, our Bureau of "Agricultural Engineering, Plant Industry, and Soils" is a snappy organization!—JOHN A. FERRALL, PISAE.

Don't take a gun: When you go to far parts to collect plants of economic value, don't take a gun. The plant will usually come along without a violent struggle and the gun is "likely to arouse suspicion and understandably so." But there is a great deal of highly readable and extremely valuable information besides that in W. Andrew Archer's (*Office of Foreign Agricultural Relations*) recent MP 568 on *Collecting Data and Specimens for Study of Economic Plants*. Here you will learn how to travel, how to make shipments, what information to record and how to record it, and a multitude of other facts about plant identification and the preservation of specimens, all provided by a capable botanist who really knows how to write.

Virginia USDA Club

THE NORFOLK USDA Club is a flourishing institution under the capable presidency of animated Mary C. Walker, of Extension Service. The vice president is Ira Dearmon, of Farm Credit Administration, who comes in from Suffolk. Margaret Hunt, of Ext., is secretary-treasurer. In fact, Ext. is rather the backbone of this club, and attendance by women is unusually large.

Out of a potential membership of about 50, including faithful attendants from the Bureau of Entomology and Plant Quarantine (whose Mrs. Vera M. Murray is now program chairman), and several branches of the Production and Marketing Administration, they often manage to get that many out to meetings. One reason may be that the club officers are full of vim and enthusiasm.

Only four meetings are held annually and each one is something special. One is usually a luncheon meeting, one a dinner-dance meeting, and one a field trip—say to the nearby Virginia Truck Experiment Station—with speakers at each. The summer meeting is a picnic and members take a holiday from speakers. Luncheon meetings are best attended, however, though difficult to arrange these days. The club creates an altogether favorable impression.

Brief but important

Farm opportunities: Your attention is called to a processed USDA publication entitled "Farm Opportunities in the United States—Outlook, Problems, Policies," prepared by the Land Settlement Work Group of the Interbureau Committee on Postwar Agricultural Problems. V. Webster Johnson, Bureau of Agricultural Economics, is activity leader of the group. This is a comprehensive study. Subjects considered are the outlook for farming, estimates of the extent of farm opportunity as well as the general location and character of such opportunities, and public policies related to farming opportunities.

DDT: In a mimeographed letter containing informal opinions expressed in reply to incoming inquiries, the Food and Drug Administration said November 5 that DDT cannot be regarded as harmless, that it does have toxic properties, and that it should not be employed on food crops or in the storage, handling, or manufacture of food, unless required, or when less toxic insecticides cannot be used. Minimum use is enjoined, with special caution about using DDT on leafy vegetables, since safer agents like the pyrethrins and rotenone are available. For the present FDA will not take action against apples and pears containing not more than 7 milligrams of DDT per kilogram. DDT tends to accumulate in the fatty tissues of animals and in milk fat, which adds somewhat to the hazard of our consuming fruits and vegetables upon which DDT has been used.

USDA mimeographed documents: Following are the numbers and titles of our mimeographed documents, which can be supplied in limited quantities by the editors of *USDA*. Order by number, if possible, from T. Swann Harding, Office of Information. We prefer interoffice messenger service, or mail from the field, but if you are in a great hurry, phone 4842 or 4875. No. 1, Origin, Structure, and Functions of the U. S. Department of Agriculture; No. 2, Constituent Agencies of the U. S. Department of Agriculture; No. 3, Abridged Chronology of Agriculture's Part in the War; No. 4, Condensed History of the U. S. Department of Agriculture; No. 5, Current List of Top Officials of the Department of Agriculture (Abridged); No. 6, Important Recent Achievements of Department of Agriculture Scientists; No. 7, Outstanding Scientific Publications by USDA Research Workers Issued by the Department of Agriculture; No. 8, Abridged List of Federal Laws Applicable to Agriculture (Including Reference to Former Functions); No. 9, Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date; No. 10, Our Department Scientists.

Dr. Louis B. Howard: Appointment of Dr. Howard as assistant chief of the Bureau of Agricultural and Industrial Chemistry was announced November 20. He has been associated with this Bureau most of the time since he joined the Department 17 years ago. He will devote special attention to food processing and products research. He rose from the ranks to be assistant director of the Bureau's Northern Regional Research Laboratory and then head of the Commodity By-products Division of the Western lab. A native of Illinois, he graduated from Purdue and did postgraduate work at the University of Chicago.

Timber!! The largest block of timber ever offered for sale by the Forest Service in the North Central Region was advertised in Minnesota. It involved an estimated 547,000 cords of jack pine, 13,000 cords of balsam fir, and 243,000 cords of spruce pulpwood in Superior National Forest. Some 160,000 cords of aspen and other species also may be included. Much of the timber is overmature and will be an economic loss unless logged. The sale contract includes not only provisions to insure new timber growth, but all special precautions necessary to protect fully the unique scenic values around the many lakes in this famous wilderness and canoe-trip country. The logging job will probably last 18 years!

Space eaters: Experiments with tree fruits take up a lot of space, which is one reason that comparatively few of them are carried on. You can snuggle 2,400 tomato plants into their beds in a single fertile acre and—conditions being right—they will do very well. Most cornfields for grain production have about 3,500 hills to the acre with 3 plants to the hill. But you can get only about 100 apple trees on an acre at cropping age, or perhaps 120 peach trees. However, at the Plant Industry Station, Beltsville, Md., there are 40 acres in apple varieties, 37 in peaches, 10 in pears, 3 in plums, and 1 in cherries. There are 8 acres of nursery stock in addition. This is, in the main, just to give you an idea of how huge our plant laboratory is out there at the Agricultural Research Center. Dr. W. W. Aldrich is the principal fruit-crop research worker.

Trees in Iceland: Treeless Iceland will some day have extensive forests of Sitka spruce from the Chugach National Forest in Alaska,

if plans of the Iceland Forestry Service work out. Test plantings have indicated that the species is well suited for Iceland, and during the past few years quantities of seed have been collected with the help of the U. S. Forest Service. Hakon Bjarnason, of the Iceland Service, recently visited the FS regional office in Portland, Oreg., to find out about new developments in mechanized equipment for sowing, weeding, cultivating, and transplanting in forest nurseries. Iceland is on the eve of a big expansion in forest planting.

John Gunther: This well-known author was amazed, during a recent visit to USDA, at the high caliber, variety, and efficient distribution of USDA publications. The New Yorker once depicted a lady saying: "Isn't it about time for another of John Gunther's insides to come out?" It seems that such is the case, too. Moreover, the Department's work will be high-lighted in one section of this book, which will discuss America as Europe was discussed in the same author's *Inside Europe*.

Good judgment: A farmer was asked how he had become so successful. He said he attributed his success to good judgment. "To what do you attribute your good judgment?" he was asked. "To experience," he replied. "And what is experience?" "That," he said firmly and finally, "is the result of poor judgment."

Want to be a Lincoln: If you would like a strictly modern log cabin, with appropriate furniture made from the same raw material, get hold of MP 579 entitled "Building With Logs." Here you will find the relatively simple art of log construction clearly expounded, some floor plans of possible dwellings, pictures of many forest ranger's stations, and both cuts of and instructions on how to make artistic log furniture. The publication is by Clyde F. Fickes and W. Ellis Groben of Forest Service, and is attractive and informative throughout.

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